School of Design and the Built Environment

An Argument for the Improvisational Design of Customer Service Behaviours

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Declaration

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgment has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

Human Ethics

The research presented and reported in this thesis was conducted in accordance with the National Health and Medical Research Council National Statement on Ethical Conduct in Human Research (2007) – updated March 2014. The proposed research study received human research ethics approval from the Curtin University Human Research Ethics Committee (EC00262), Approval Number # RDHU-01-14

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Abstract

Business and government have embraced design thinking as an effective – and human-centred - approach that supports service innovation. Commercial, social and political imperatives make this type of innovation increasing desirable, and influential design thinking consultancies - such as IDEO - advocate not only for a broad commitment to design thinking as an approach to problem solving but also their own proprietary framework and methods. However, the precise definition of design thinking remains unclear, and although collaboration is highlighted as a key feature of the approach, institutional power dynamics are often oppositional to the creative experimentation that true collaboration requires. Design theorists remain sceptical that this approach to design thinking delivers the sort of breakthrough innovation that some of its advocates promise.

The thesis examines design theory to locate the management-oriented design thinking discourse that resonates with business and government. A case study of design thinking process models provides a comparison of several prominent approaches to practice, and presents an analysis of the key characteristics of these approaches.

This analysis reveals several important features of design thinking that rely on improvisation. However, the processes of improvisation remain unexamined in the design thinking literature. As improvisation is understood as an exemplar for creative collaboration (that is claimed to be central to design thinking), I also conduct a case study of improvisation in practice. This confirms several important similarities to design thinking, particularly as it is applied to service innovation.

I explore service management theory and the design *for* services (as opposed to service design) arguments. These arguments reinforce the requirement for improvisation processes to be properly understood if they are to be employed as part of emerging design methods. This investigation is particularly relevant to Manzini's (2011) conceptualisation of an 'action platform' for service. Such a 'platform' is intended to create an environment that encourages a particular range of desirable human behaviours. Manzini proposes this type of platform as a new method for supporting practical design by non-experts, but he does not explain exactly how these desirable behaviours might be encouraged.

I examine how improvisation and design might be combined to address this gap, and demonstrate this in a case study of a specific customer service environment. I also develop a proposition for an 'action platform' that illustrates how Manzini's concept for anticipating the complexities of service might be developed for practical application in industry.

In addition to describing the characteristics of an 'action platform' that encourages innovative behaviour, this research reveals a significant gap in the understanding of the role that improvisation plays in design *for* services and design thinking. The close examination of design thinking and improvisation process models that reveals their shared features, and the illustration of how these features might be applied to customer service innovation constitute original contributions to design knowledge.

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Figure 10.3 was developed with the help of a professional graphic designer who worked to my specification. I own the rights to this image.

Chapter 1 Introduction

1.1 Research background

Business and government are increasingly interested in delivering human-centered service innovation (Julier and Moor 2009, 5, Kimbell 2011a, Manzini 2011, 1-2, Nusem, Matthews, and Wrigley 2019). However, their organisational power dynamics are often oppositional to empathy and creativity, which are both central to this goal. Advocates of design thinking claimed that it could play a special role in the understanding and influencing of human behaviour (Brown 2008, 2009, 37-60), and a variety of proprietary design thinking methodologies now exist. Nevertheless, there is enduring skepticism amongst the academic and professional ranks about its effectiveness as a means for design.

Theorists in the emerging design *for* service movement conceptualise service as a socio-material construct that is realised in the 'moment' of a service encounter (Kimbell 2011b, Sangiorgi and Prendiville 2017, 87). Several of these theorists argue that design thinking *is* an appropriate, human-centred approach to service innovation and that it should be incorporated in designs *for* service (Meroni and Sangiorgi 2011, 157-158, Manzini 2015, 34, Sangiorgi and Prendiville 2017, 19 & 53). However, it remains unclear how this type of approach to design thinking might be enacted in the 'moment' of a human-to-human service encounter. The precise situated details of such time-constrained human encounters cannot be foreseen by designers, and can only be known by the situated actors in each 'moment' (Normann 1991, 21, Kimbell 2011a).

Designing for the optimisation of human-to-human service interactions that must be highly responsive to unforeseeable, specific and local circumstances is a practical example of designing for problems that are emergent and require an immediate response (Kimbell 2011b). In such cases the framing of the problem, the generation and selection of potential solutions - and their enactment, must be almost instantaneous. This spontaneous combination of cognition and behaviour is often identified as improvisation. Consequently, it would seem that optimising customer service encounters requires some means of combining design and improvisational thinking and practice.

Despite established models of design cognition typically indicating a sequence of diverging and converging thinking that occurs across a definite period of time, the amount of time that elapses is actually not specified. Contrary to the apparent paradox of improvisational design (in which a coherent process recognisable as design is performed

in an extremely short timescale) there is recent research suggesting that divergent and convergent thinking can occur concurrently (Goldschmidt 2016). This type of spontaneous insight has long been associated with intuitive expertise (Koestler 1975, 137, Duggan 2007, 14, Dorst 2009, 285).

Although Sirkin et al. (2016a, 2016b) argue that improvisation is an appropriate tool for some types of design enquiry, neither its underlying processes nor its potential for wider application as a design tool are explored in the design literature. Given the credible, anthropological arguments for the ubiquity and importance of improvisation within human behaviour (Hallam and Ingold 2007), it seems an appropriate domain for design research – particularly when viewed as the type of informal innovation approach that Manzini and Coad (2015, 3) identify as 'diffuse' design.

Through a detailed examination of the literature and a series of cases studies, the thesis explores design *for* service, design thinking and the performance art of improvisation, as well as their inter-relationships. In their application to customer service the thesis reveals the underlying dynamics of design thinking and improvisation to expose a number of important similarities. An original contribution to design knowledge is made through a conceptualisation of 'improvisational design', the production of empirical evidence of its presence in contemporary design practice, and its incorporation in an illustrative 'action platform' for emergent customer service innovation. This conceptualisation is not intended as a discrete – or new – design field; rather it is an interpretation of existing arguments for discernible competences and 'intelligences' that are subordinate to design *mastery* – but remain designerly (Dorst 2009, Mosely, Wright and Wrigley 2018).

1.2 Research aims and objectives

The largest sector in the developed economies is services, and this sector provides a major source of employment (Gryczka 2016). However, the increasing power of digital technology seems likely to make many mid-skilled service occupations redundant, creating a gulf between a minority of highly paid service professions and the majority of low paid, unskilled service roles (Autor and Dorn 2013). As online commerce intensifies and codifiable duties are transferred to digital processing systems, firms at both the premium and economy oriented ends of the service spectrum might employ creativity to sustain an economic advantage. Nevertheless, it may prove particularly challenging to include those workers in the unorganised body of unskilled labour, especially young candidates who are seeking debut recruitment to the workforce. Consequently, in many

service workplaces there is a need for the co-creation of low cost enabling platforms that underpin autonomous and creative behaviours (that reflect situated customer needs) – as opposed to the traditional focus on training employees in the execution of routine tasks. This is also the change that the design *for* services movement foresees.

Consequently, the aim of this thesis is to provide *an argument for the improvisational design of customer service behaviours*. This overarching research aim is underpinned by the following objectives:

1. To locate design thinking and design *for* service.
2. To reveal the intrinsic role of improvisation in contemporary models of design *for* service.
3. To identify and analyse the core processes of improvisation, in order to reveal the shared features of improvisation and contemporary design thinking.
4. To describe how these features might be incorporated in an 'action platform' that supports innovative customer service behaviours.

Designerly thinking and design processes are understood as a sequence of reflective thoughts and purposeful actions that occur across a period of time. Although this sequence may be iterative, it is usually represented as alternating phases of divergent and convergent thinking (Brown 2009, 67, Steen 2013, Goel 2014, Goldschmidt 2016). This model denotes the conceptual passage of time, but does not confirm the actual amount that elapses. However, certain design problems emerge in 'real-time' and require an immediate resolution. In this instance, the initial recognition of the problem, the identification of potential solutions, and the delivery of these solutions - must all occur almost simultaneously. Given that design process models imply that a meaningful amount of time is required to produce design solutions, are we to infer that emergent problems are beyond their scope? Undoubtedly, effective solutions are desirable for all types of problems. So how might design contribute to the effective navigation of problems that emerge in 'real-time', when the improvisation of a response seems unavoidable?

Recognising the impossibility of designing in advance for every interaction, theorists identified design *for* service as the most appropriate approach (Kimbell 2011b, Manzini 2011, Meroni and Sangiorgi 2011). Design *for* service theorists also advocate the usefulness of design thinking as a means for devolved and collaborative innovation (Meroni and Sangiorgi 2011, 84 & 157-158, Manzini 2015, 34, Sangiorgi and Prendiville

2017, 19 & 53). As part of this type of approach, Manzini proposed the design of local 'action platforms' that would support "opportunities for action and interpretation" during service delivery (2011, 3). However, he did not specify how this local freedom might be enacted in practice. Given the challenge of the time constraints that prevail when customer service is delivered 'in the moment', it seems reasonable to infer that some form of improvisation is also necessary.

Gerber (2007, 2009), Sirkin and Ju (2015) and Sirkin et al. (2016a, 2016b) have all argued that improvisation is an appropriate tool for some types of design enquiry, but – to the knowledge of this researcher - its underlying processes and potential for more general application remain unexplored in the design literature. For example, Curedale (2012a, 2012b) lists over 400 methods that might be applied to support design thinking and, although he does include tactics such as role-play and the unscripted exploration of pre-determined scenarios, there is no mention of pure improvisation.

In one of the leading management-oriented design thinking texts, Brown (2009, 33, 96-97, 122) refers to improvisation as a useful design method, but is silent on the actual processes and underlying dynamics of improvisation. A reader might infer that effective improvisation is so completely straightforward that it requires no further explanation. In more recent design literature (Sirkin and Ju 2015, Sirkin et al. 2016a, Sirkin et al. 2016b), improvisation is more closely examined but its application is limited to a means of enquiry and testing. Other academic literature (Hallam and Ingold 2007) provides substantial analysis of how improvisation may function as a pivotal social process and as a means of producing meaningful 'just in time' solutions. Pine and Gilmore identified improvisational performance as a dynamic means of "finding value from something new" and highlighted the increasing need for improvisational skills in the workplace (1999, 124&126).

This research landscape is relevant to the field of human-to-human customer service interaction, where the problem recognition and its response may need to be nearly simultaneous. Just as in the field of digital interaction design, an optimised user experience system requires careful and skilful production. Yet, in the realm of live service, this production must also include a level of spontaneity given the impossibility of planning for every specific eventuality and customers' expectations of timeliness (Normann 1991, 21, Kimbell 2011b). Nevertheless, there appears to be no contribution from design research to the resolution of this significant problem. Although service design has already provided a substantial suite of tools for improving the flow and interactions of customer experiences (Stickdorn and Schneider 2010, 40-41, Sangiorgi and Prendiville 2017, 19, Yu and

Sangiorgi 2018), it has not yet focussed on the mechanics of individual instants of human-to-human engagement, which may require the spontaneous generation of a bespoke solution for the specific situation and customer of the time.

Kimbell (2009, 160-161) refers to a body of 'silent design', within which technicians and managers, who have not been formally trained as designers, plan and execute tactics intended to move operations towards a preferred future state. It seems that the problem of optimised customer service has largely been left to this professional community, with Service Quality practitioners historically having played the most prominent role (Pine and Gilmore 1999, 116). On the basis of this gap in practice and the scale of the service sector, design thinking consultancies have proposed new forms of practice that respond to such a substantial opportunity for industrial engagement and commercial gain. The significant, ongoing influence of IDEO in this domain is widely recognised by design theorists (Meroni and Sangiorgi 2011, 157, Bjögvinsson, Ehn, and Hillgren 2012, Kirchberger and Tether 2017, 65, Mosely, Wright, and Wrigley 2018).

Of course, design methods (whether those recognised formally - or not) have always evolved in response to social and technological changes (Kimbell 2011a, Johansson-Sköldberg, Woodilla, and Çetinkaya 2013). In particular, the scope and relevance of human-centred design has developed over the past twenty years (Krippendorff 2004a, Kelly and Matthews 2014, Sangiorgi and Prendiville 2017, 2-3). So, in light of the increasing importance of the service sector to developed economies (Gryczka 2016), it seems credible that the design of spontaneous, interpersonal interactions may be an important realm for research and recommendations. Given current arguments that work requiring creativity and human interaction is least susceptible to replacement by automation (Frey and Osborne 2017), the performance art of improvisation is potentially valuable as an exemplar of creative collaboration – expressed through behaviour (Vera and Crossan 2004, Mendonca 2005, Heward and Bacon 2006).

The definitions in literature support the conceptualisation of improvisation as a highly collaborative process (Mendonca 2005, 954, Vera and Crossan 2004, 731-733), with its golden rule being to accept - and then collaboratively develop - any premise that may be offered. The technique of using "yes, and …" as a conjunction for the series of 'offers' generated by the improvisational group, underpins the full development of the initial idea. This is in contrast to the rather more typical "no, but …" response that replaces one idea with another. Nevertheless, the power interactions present in the dynamics of the proficient execution of these deceptively complex improvisational techniques must be properly

understood, particularly when being transplanted to a typically hierarchical business environment. Although the public may be most familiar with improvisation through its presentation as a reliable source of comedy, it is founded on a specific community culture, which – through its focus on the present moment and embrace of low cost failure - serves to enable its cognitive processes, and the increasing command thereof.

1.3 The research problem - designing for creative customer service

As explained in the introductory sections, certain types of problem are emergent, urgent and are framed by expectations of an excellent, rather than merely satisfactory, solution. They may thus demand an improvised response. Improvisation has been overlooked as an effective means of producing useful and original solutions, and has not been directly investigated as a potential realm of designed, creative production. Although improvisation has been popularly presented as comedic, there are credible arguments that improvised problem solving is fundamental to human behaviour, and that - through the insight afforded by strategic intuition and a focus on identifiable improvisational processes - robust solutions can be generated reliably (although without guarantee). Despite a discrete passage of time implied in design process models, Goldschmidt (2016) has presented evidence that divergent and convergent thinking can occur simultaneously during creative design, perhaps suggesting that improvisation and design may be reconcilable. Given the conspicuous quality of their outputs, these spontaneous acts of cognition should be explored within the context of the apparent paradox of improvised design.

Through an examination of contemporary theory and practice, this research contributes to the field in revealing the significant role of improvisation in both design *for* service and design thinking. In doing this, a number of important similarities between design thinking and the performance art of improvisation are evidenced. Given improvisation's bias to creative action, this suggests some useful applications within the field of interpersonal customer service interaction design, in which many problems are emergent (Meroni and Sangiorgi 2011, 20). Although digital interaction design has received a great deal of attention over the last decade (Krippendorf 2004a), the human-to-human interface also continues to require new methods and tools. Certain sectors, such as hospitality and various forms of care services, require delivery by a human server – and the perceived relational nature of these types of services is inherent to their value. For instance, meaningful interpersonal contact during a home care visit may contribute far more to the

humanising effect of the service than process tasks such as cleaning and tidying, which may also be required (Lee 2004, 9-16).

However, Oliver (1980) - and then Brüggen, Foubert, and Gremler (2011) - argued that a customer's perceptions of value are peculiarly subject to Helson's Adaptation Level Theory (Helson 1964); in that whatever is initially perceived as stimulating, eventually becomes absorbed into the normative sphere of expectation. This means that whatever is unexpected and delightful on the first encounter ceases to be so, if it is repeated without ongoing innovation that provides novelty and surprise. Consequently (and in support of the arguments by Oliver et al.), a customer's expectations are ever growing due to his or her eventual habituation to any initially surprising stimulus. This effect is reciprocated by the server's steady habituation to their own work environment and the impact of unthinking repetition (Koestler 1975, 96), as they master routine tasks. Finally, the economic incentive for firms to standardise almost any operational practice (Suzaki 1993, 93-107), serves to exacerbate this scenario – stifling creativity at the organisational and individual levels. As Arthur Koestler wrote:

> *Habits … reduce man to the state of a conditioned automaton. The creative act … it is an act of liberation – the defeat of habit by originality.*
>
> (Koestler 1975, 96)

In order to investigate Koestler's claim, creativity can be understood as the generation of that which is "original and useful" (Lewis and Lovatt 2013). It combines problem-finding (divergent) and problem-solving (convergent) approaches (Goel 2014), with the precise measurement of these characteristics remaining problematic (Silvia, Martin, and Nusbaum 2009). However, it seems clear that deliberate creativity requires the ongoing capability to think abductively - in the production of the *original*, and either deductively or inductively - in the selection of the *useful*. Nevertheless, the stability, and cultural demarcations, of modern life may serve to jeopardise the basis for creative capability, and the physiological reasons for this are briefly explained in the paragraphs below.

In generating new solutions, or hypotheses, there may often be a gap between the forecast and actual outcomes. This concept of the prediction error (Dolan and Dayan 2013), and the brain's biochemical response to it, now appear central to novel thinking and behaviour. Simply put, one of the decision-making systems of the brain tunes itself to the usual environment, leading to recurring – and increasingly inflexible – patterns of thinking. A child gradually makes sense of the world through an easy preparedness to hypothesise,

based on limited prior evidence. Although there is sophistication in their thought processes (Ng 2010), their limited exposure to the mechanics of nature – or culture – leads to many false hypotheses.

As the development of the neural network, or – more colloquially – the mental map, requires an ongoing motivation to enrich understanding, the brain releases dopamine in proportion to the level of prediction error (Dolan and Dayan 2013). For a young child, a surprising refutation of their forecast is pleasurable. However, with increasing habituation – often associated with aging and socialisation to a stable environment – this element of joy in surprise substantially reduces; as does – along with it – the inherent incentive for abductive thinking (Martin 2009, 64-65). Consequently, this tendency to think within a paradigm becomes an obstacle to creativity, given its defining dimension of originality.

Furthermore, there is a tacit rejection of creativity in times of uncertainty, despite the explicit societal expression of desire for it. Uncertainty is generally a state that society wishes to diminish or avoid. So contrarily, even whilst times of uncertainty may require new solutions, the novel characteristic of truly creative ideas may be rejected. This form of bias has been evidenced in studies testing individuals' implicit, negative associations with the uncertainty that accompanies innovative ideas (Mueller, Melwani, and Goncalo 2012). Contrary to the positive public endorsements of creativity by organisations, the attraction of paradigm-aligned rationality is what many businesses actually seek (Rylander 2009, 9).

Despite the main impediments to creative customer service having been conceptualised in this section, it will also be useful to present a specific autobiographical example that makes the need to encourage creative and autonomous customer service behaviours clear. This will make the everyday manifestation of this research problem entirely recognisable to the reader.

During August 2017, I visited a newly opened TGI Fridays (a global restaurant brand) in the UK. The recently appointed server responded to my every request with the phrase "no problem". Both of these words carry a negative association, and their use implies that a customer might need reassurance because their requests – all be they typical – are potentially unreasonable. To order a hamburger from a restaurant that specialises in selling hamburgers should not be insinuated to be a problem – no matter if only as a semantic point. The repeated and compulsive use of the phrase "no problem", even though the intention of this young server was, in all likelihood, to be positive and helpful, suggested that they still lacked the capacity to perform the routine task of capturing a customer's order whilst also establishing the desired relational rapport.

The constant use of a generic, colloquial phrase seemed like a mild, nervous tic that revealed the anxiety of the server – and drew my attention to their lack of customer service finesse. The receipt for the meal carried a standard footer that stated: "Only great service deserves a tip!" Presumably the prospect of earning tips would be desirable to a recently appointed customer service employee, and it seems reasonable to ask why their employer – in this case a major UK hospitality brand – had not done more to assist them in the delivery of the type of 'great service' that exceeds customer expectations.

1.4 Structure of the thesis

The thesis is divided into two main parts. Part A includes the analysis of design and improvisation in both theory and practice. Part B then contains the exploration of how an innovation 'action platform' might be developed and applied in a specific customer service environment. In order to assist the reader in engaging with the thesis as a whole, the following section outlines the structure and content of each of the subsequent chapters.

Chapters 2 to 4 – Literature Review

I explore contemporary theories in design research; particularly how the design thinking and design *for* services movements have emerged from the traditional fields of industrial and cooperative design. This illuminates the distinction between designerly thinking and design thinking. The former is the realm of professionally trained designers (such as engineers and architects), and the latter is the realm of those advocates of management-oriented practice, who respond to the prevalence of 'silent design' that was defined by Gorb and Dumas (1987). Consideration will also be given to the informal innovation networks that Manzini refers to as embodiments of 'diffuse' design (2015, 3). It will be seen that the field of design continues to evolve at a rapid pace, with unifying definitions and models remaining elusive. Although the articulation of such models may benefit from mapping, Alfred Korzybski reminded us that:

> *A map is not the territory it represents, but, if correct, it has a similar structure to the territory, which accounts for its usefulness.*
>
> (Korsybski 1933, 58)

An examination of the various, explanatory models of design processes shows that – inevitably – these deliberate simplifications, although conceptually meaningful, are merely generalised representations of the reality of design and designing. Although the thought

processes of designers may generally follow the sequence of divergent and convergent thinking, they cannot prevent themselves from having a moment of strategic intuition where the realisation of the problem and the arrival of a credible solution coincide (Newell and Simon 1972, Koestler 1975, Duggan 2007). In fact, Dorst (2009, 285-287) claims that the more experienced the designer, the more susceptible they are to these moments of strategic intuition. This type of insight, when combined with a behavioural action that brings the solution into being, is identifiable as improvisation (Julier and Moor 2009, 15), and its influence in design thinking is recognised by Brown (2009, 33 & 96-97 & 122).

Neuroscience offers us a gradually richer understanding of the human thought process, but no single model can capture each individual thought of every participant in a design project. However, I will employ established problem typologies (Rowe 1987, 90, Duggan 2007, 22-23, Hart 2003) to locate the appropriate operational space for design. In properly defining the problem space and clarifying the recurring principles of design process models, it becomes possible to frame the resulting claims of design knowledge (Beck and Stolterman 2016).

In clarifying the limits of typical design knowledge, arguments emerge that human beings very often improvise to fill the inevitable gaps in detail that exist between the end of the formal design process and the end of the production (or delivery) phase (Hallam and Ingold 2007, 4-5). Excepting realms such as precision engineering and electronics, where the designer may continue to contribute fine detail until the absolute completion of a project, few design concepts are ever fully resolved by the designer themselves (Krippendorff 2006, 24).

Consequently, there may often be a material difference between the final representation of the design concept and the actual artefact that is eventually produced. This is particularly true for service and social design, where the end product is co-constructed through the participation of those who are delivering and using the designed solution. Where there are gaps or ambiguities in the transmitted design knowledge, those who actually enact the design must improvise to convert a designer's detailed concept into a material reality. The role of improvisation in the full resolution of a proposed solution, does not compromise the value of design – and by its purposeful accommodation in the design system or solution, it may serve to enhance it. This is the case with creative customer service (Pine and Gilmore 1999, 125-127). Manzini (2011) and Kimbell (2011b) recognise this interplay in their conceptualisation of designing *for* service (rather than service design *per se*).

Through my review of the service management and design *for* services literature, I show that theorists such as Kimbell and Blomberg (2017), Sangiorgi, Patrício, and Fisk (2017) and Sangiorgi and Prendiville (2017, 254) recognise the need for this new form of 'design in use', in which the user also innovates to realise the potential of a designed artefact (Ehn 2008, Bjögvinsson, Ehn, and Hillgren 2012). Given the time constraints that prevail for 'just in time' services, these theorists thereby suggest the need for improvised performance in responding to the "opportunities for action and interpretation" (Manzini 2011, 3) that exist in a momentary service encounter. Therefore, any 'action platform' for customer service innovation would need to incorporate ways of supporting both design thinking and improvisation.

In order to provide a framing concept for this fusion of improvisation and design, Chapter 3 concludes with an exploration of the system level view of how creative and autonomous service behaviours might be reliably encouraged in the workplace. Many of these arguments include consideration of relational power dynamics, which are often grounded in cultural politics (Bourdieu 1998, 5). However, the social nature of human-to-human customer service – and its enactment within overarching social systems - cannot be overlooked. This context is central to my argument for novel human-centred approaches to customer service innovation.

To fully contextualise this argument, I take a closer look at the theories of improvisation – as a performance art form and in its application to everyday life, commerce and design. This examination exposes the underlying processes of improvisation and reinforces its exemplar status, with regard to creative collaboration and abductive problem solving. I also show that current design theory appears to be limited to the consideration of improvisation as a method for co-design enquiry (Gerber 2007 & 2009, Sirkin et al. 2015 & 2016), rather than any investigation of its potential as a substantive method of design production.

Chapter 5 – Methodology

I adopt a qualitative research methodology, and employ an interpretive and constructivist approach (Denzin and Lincoln 2005, 192-193, Clandinin 2007, 150-151, Reason 1988a). My approach relies on the construction of knowledge through the analysis of several case studies, and this analysis then serves as the context for a number of propositions that frame my description of an 'action platform' for emergent customer service innovation. In order to ground this description, it is applied to the specific findings of an ethnographic field study conducted in the hospitality industry.

Eisenhardt (1989) described the process of building theory from case study research and outlined the various, inductive methods that might be applied. Her analysis – which will be discussed in Chapter 5 – highlights the relative strengths and weaknesses of the method, and particularly warns of the care needed when claiming patterns that exist across cases. This is relevant to this research project, in which the seemingly distinct practices of design thinking and improvisation will be compared and contrasted. This is achieved through an initial content analysis of three influential design thinking texts. This inductive analysis is used to generate a categorisation matrix (Elo and Kyngäs 2008), which then supports a directed content analysis (Hsieh and Shannon 2005) of improvisation in practice (enabling the generation of empirical evidence that design thinking and improvisation share several important features).

Yin (1994, 13) defined the primary feature of a research case study as an empirical inquiry that "investigates a contemporary phenomenon within its real-life context". Recognising the likelihood of blurred boundaries between the specifics of the case and the general context, Yin recommends the cross-referencing of multiple streams of data collection in order to more convincingly substantiate any hypothesised relationship to prevailing theory. Building upon previous conceptions of case studies (Crouch and Pearce 2012, 124-125, Clandinin 2007, 445), I employ three distinct forms of case study (intrinsic, collective and instrumental) to investigate design thinking, improvisation and service innovation - respectively. Beck and Stolterman (2016) endorse the benefits of a multi-disciplinary perspective in design research, and this frames the choice of different fields for enquiry in the case studies and narrative research contained in Chapters 6 to 8, which then serve to substantiate the interpretation and claims made in the instrumental case study presented in Chapters 9 and 10.

Hart's (1998) typology of the claims that may be made by researchers also serves to frame the interpretive and constructivist paradigm adopted in this thesis. Hart describes five types of claim, those of: fact, value, policy, concept and interpretation. Claims of fact are those that can be verified or falsified, claims of value, by contrast, cannot be proven true or false – as they are value judgments. However, the claims made in this research will be those of policy (what should be done instead of what is currently being done), concepts (about the meaning of things) and interpretation (about how some data should be understood).

A number of these claims are grounded in the "intuitive logic" (Beck and Stolterman 2016, 211) that is informed by my professional experience in the hospitality industry. A formative episode in this experience was a project with professional service designers,

who conducted a detailed ethnographic study of customer behaviours (in a hospitality brand for which I worked). As a result of this field study, I inferred relationships and behaviours that appeared to transcend that specific hospitality environment. My inference was that typical customer service scenarios actually replicate a number of archetypal social interactions, which might be intuitively navigated by service workers – given an appropriate framework and the permission to act spontaneously. This inference was one of the triggers for this scholarly research project, and several of the actual examples that I observed are used as the basis for the illustrative 'action platform' that is presented in Chapters 9 and 10. The inclusion of these specific, experienced examples increases the legitimacy of applying "intuitive logic", as conceptualised by Beck and Stolterman (Ibid) and Krippendorf (2006, 21). The demonstration also serves to illustrate how a theoretical service 'action platform' that supports innovation might actually operate in practice, as Manzini is not explicit in his description of this important aspect.

Chapter 6 – An Analysis of Design Thinking Process Models

The primary characteristics of contemporary design thinking and the intentions of the practicing community are established through a case study of three process models from the IDEO and Stanford school of management-oriented design thinking practice. These are: Tim Brown's *Change by Design: How Design Thinking Transforms Innovation and Inspires Organisations*, Stanford University's *Empathize and Prototype* online module and IDEO's *Human Centred Design Kit*. These publications represent the shared methodologies of IDEO, one of the largest strategic design consultancies, and Stanford University's Hasso Platner Institute of Design. The inductive content analysis of these three resources is supplemented by my examination of design thinking theory (conducted in Chapter 2) to compile a profile of this approach to current design thinking practice.

Of course there are several design thinking paradigms, so this chapter begins with a brief examination of the dominant management-oriented process models. The keys steps of each are identified, in order to support a direct comparison of these models. The common characteristics that are identified in the case studies of the three publications are then analysed and defined as several distinct categories. My analysis supports the production of a categorisation matrix (Satu and Kyngäs 2008)) that enables the features of improvisation to be compared to those of design thinking (in Chapter 7). Ensuring the reliability and validity of this matrix is relatively straightforward, given that the three texts are didactic and each is explicit in articulating its own design thinking process model.

Nevertheless, the analysis in this chapter reveals that design process models must still be accepted as being *representational*. Although each may contain identifiable and consistent characteristics, they remain deliberate simplifications of opaque, human cognition. As Korzybski (1933) argued the 'map is not the territory'. The evidence in the chapter suggests that the individual approaches of prominent strategic design consultancies may not be that distinct in their actual practice (Kimbell 2009, 158) – and that *designerly* insight may still override their recommended processes. Despite Rylander's claim that representatives of design firms may genuinely struggle to "speak the same language as clients" (2009, 8), it appears that the politics of commerce loom large.

Chapter 7 – Revealing the Processes of Improvisation in Practice

The categorisation matrix and definitions produced in Chapter 6 are used to direct a deductive content analysis of improvisation in practice. I present primary research based on interviews with, and observations of, an established improvisation troupe. The case study identifies and examines a number of improvisational techniques that are observed in practice. The influence of underlying power relationships is closely scrutinised, as this is the potentially hidden (and dominant) factor in the effective collaboration that is central to improvisation. Given that the popular presentation of improvisation reveals only the apparent quick-wittedness and self-confidence of its performers, in the absence of a guiding framework many service workers may regard it as being beyond their professional capabilities – and too risky an approach for their workplace.

The mindsets and methods that underpin the performance art of improvisation are revealed, and compared to those identified in the profile of design thinking. Empirical evidence of several important similarities is presented. The evidence of these shared characteristics is summarised for the reader, as it suggests that some aspects of IDEO's approach to design thinking might be usefully employed in the 'moment' of the service encounter. This is not to conclude that design thinking mastery might always be enacted, but it does suggest that behaviours and reflexivity recognisable as design thinking competence are possible (Dorst 2009, 285-287, Mosely, Wright and Wrigley 2018). If so, this realises the ambition of those design *for* services theorists that advocate the application of design thinking to service interactions. Consequently, my findings inform the design of a customer service 'action platform' that may enable improvised behaviours that support emergent innovation.

Chapter 8 – The Importance of Variety in Customer Service

One of the major concerns of this research is the application of design to emergent customer service problems. Chapter 8 provides a detailed examination of the challenge of sustainably delivering bespoke customer service, for which novel and useful customer service behaviours must be generated and delivered 'just-in-time'. This examination includes a case study of the Ritz-Carlton Hotel Company's current framework for supporting a form of service innovation that it terms 'anticipatory service'. As has been explained, the two defining dimensions of this innovation problem are that:

a. Bespoke customer service demands an original response to the specific and local circumstances, the best solution to which no one – least of all remote management planners – can know in advance. The situation can only be known at the moment of problem definition, and – in the vast majority of cases – there is an imperative of timeliness for the delivery of a behavioural response. Rather than the traditional focus on remedial action to mitigate customer disappointment, the service organisation's goal should be the anticipation of customer needs and a delightfully pro-active intervention (Lee, 2003; Lee 2004, 12-13; Lee 2006). Normann (1991, 68) locates this is as the 'moment of truth'.

b. The customer's perceptions of value are peculiarly subject to Helson's Adaptation Level Theory (Oliver 1980, Brüggen, Foubert and Gremler 2011); in that whatever is initially perceived as stimulating, eventually becomes absorbed into their sphere of expectation. That which is surprising and delightful on the first encounter, ceases to be so if it is repeated without ongoing modification. This means that, although new solutions might be shared across an organisation so that they are new to specific locations, there must be some system that generates value-creating behaviours that are also entirely new to the world.

If Simon's (1969, 55) foundational definition of design as the movement from an imperfect present state to a preferred future state is used as a starting point, then *a priori* a form of 'improvisational design' is required to optimise customer service (given that it is so highly time-constrained).

Since the Service Quality movement of the 1990s, scholars and management practitioners have sought to define what constitutes optimal customer service and how it might be reliably delivered (Kimbell 2011a). It is clear that the adaptation of the server's personal behaviour to the perceived, specific needs of each customer is the resulting goal (Clemmer and Sheehy 1992, Bettencourt and Gwinner 1996). More recent research has sought to

further analyse the linkages that underpin delivery of this goal (Brozovic, Nordin, and Kindström 2016) and to ground them in theories of human performance (Aryee et al. 2016). However, despite the complexities of this problem, its resolution has been left to those practitioners operating in the realm of 'silent design'. Rather than credentialed designers, these are "people who are not designers and are not aware that they are participating in design activity" (Gorb and Dumas 1987, 150).

The intended effect of this 'silent design' has been the development of service models that systematically seek to reduce variety in the hygiene factors of their proposition, whilst purposefully seeking to increase variety in those factors that drive customer delight (Roberts 2005, 146-152). For instance, a child's meal might need to be prepared with identical levels of food safety and product consistency, but the server might elicit each child's name at the point of order and add a bespoke element (such as a depiction of the letter of their given name) to the finished dish. As explained earlier, that which is delightful at the first experience soon ceases to generate the same effect of pleasant surprise when repeated. Consequently, the service firm must simultaneously attend to the planning of its logic-based processes, whilst innovating new means of engendering positive human perceptions (Lee 2004, 9-16). The first part of this challenge seems entirely compatible with traditional, rational management planning, but the second requires the anticipation of, and empathic response to, customer emotions – along with the generation of an endless stream of creative solutions. We now must explore how this form of micro-innovation might be supported.

Chapter 9 – Towards an 'Action Platform' for Customer Service Innovation

Having examined the literature and conducted case studies to identify the processes operating at the intersection of improvisation and design, I now explore what any 'action platform' (Manzini 2011, 3) for innovative customer service behaviours might look like. As per the example of the child's meal in the preceding paragraph, Manzini (Ibid) recognises that useful platforms need to support not only the reduction of certain forms of variety but also the purposeful increase of variety in human interactions. Therefore, I explore the human capability for responding intuitively and effectively to the archetypal customer scenarios, through reference to established service design methods – such as user-personas.

In the second half of this chapter, I describe how a potential 'action platform' (that supports a form of emergent innovation) might be applied to a specific customer service environment. This industrial environment is an actual branded café chain that is well established throughout Western Australia, and my demonstration is grounded in data

gathered during an ethnographic field study conducted for this brand. I particularly focus on how the problem-finding approach of the customer service worker might be supported to increase the speed of recognising any underlying customer need state. Accelerating the speed of convergence on this need state is an important part of achieving the apparent spontaneity that is a characteristic of both improvisation and anticipatory service.

Chapter 10 – Design of an 'Action Platform' that Supports Innovative Customer Service Behaviours

With a method for accelerating convergence on the correct customer need state having been established, it is now necessary to support divergent – but relevant – behaviours by way of a response. Therefore, I explore possible methods for enabling a spontaneous creative response to the customer needs that have been detected. These responses are problem-solving actions that emerge as a series of prototype behaviours (performed by the service worker) that respond to the anticipated customer need. I ground my synthesis of these theoretical arguments in several specific examples from an earlier ethnographic field study, in order to describe how a platform might be designed to function in practice.

In light of the need for 'just-in-time' action, this 'action platform' promotes a tendency towards simultaneous convergent and divergent thinking (Goldschmidt 2016). When combined with improvised behaviour, this is a form of thinking that is recognisable as *designerly* thinking (Cross 2007, Sköldberg et al. 2013) – but in this instance it is being performed by customer service workers. Although the firm might provide the resources to deploy the platform, it will ultimately be reliant on individual workers' access to their inner resources if it is to qualify as an 'action platform' that supports sustainably innovative customer service interaction. If employees are supported to respond swiftly in creative ways, then customers may perceive these micro-innovations as delightful 'anticipatory service'.

Chapter 11 – The Wider Implications for Design Knowledge

Through reference to the wider industrial and social contexts, I now explore a number of potential implications (that spring from the thesis) for the field of design. These implications include consideration of how an appropriate organisational culture, which supports localised and creative decision making, might be supported by purposeful design. The firm's relationship with each of its employees is a key aspect of this organisational culture. This level of interdependence indicates a high degree of system complexity, and suggests opportunities for designs that support emergent innovation (Sangiorgi, Patrício, and Fisk 2017).

Although several design *for* services theorists advocate for design thinking as an effective approach to these sorts of social 'wicked problems', complexity science is a fast-evolving field that may be able to bring a computational approach to the resolution of many of what are considered to be the 'wicked problems' of today. Therefore, I reflect on the growing interest in social complexity and how enabling infrastructure that scaffolds improvisation might be designed to confront such issues (Young and Warwick 2017).

Chapters 12 and 13 – Discussion and Conclusion

The various findings from the literature review, the case studies of practice, and the speculative 'action platform' for supporting innovative behaviours are drawn together. These constitute original contributions to the field of design research, particularly the empirical evidence of the shared features of design thinking and improvisation – and the illustration of a customer service 'action platform' as a practical means of designing *for* service. I reflect on the limitations of this thesis and make a number of recommendations for further research.

1.5 Summary

The scope of this research has now been set out and those concepts that frame the detailed arguments, which are presented in the following chapters, have been introduced. The initial arguments for the significance and complexity of managing customer service interactions have been grounded in the relevant theory. Whilst I recognise that there is also a body of scholarly literature (Kimbell 2009, Steen et al. 2011) and a range practical methods (Stickdorn and Schneider 2010, Sangiorgi and Prendiville 2017, 17, Yu and Sangiorgi 2018) that are specific to service design, there remains a gap with regard to an analysis of the specific moment of spontaneous interaction between server and customer. Manzini (2011) and Kimbell (2011a) have framed this problem in their arguments for the need to design *for* service (rather than service design). Therefore, this research is focussed on how improvisation might be used as a new component in design methods (suitably grounded in theory) that provides the spontaneous generation and delivery of creative customer service behaviours.

In summary, it is the application of a form of real-time design thinking - at the interface of the server and customer - which is investigated as a potentially novel approach. Design processes may be used to support anticipation of a range of underlying and archetypal customer needs, many of which may be only tacitly expressed. Improvisational processes

may also be used to support this anticipation, along with production of an original and useful behavioural response. This response may lead to customer delight, increased profits for the firm and an enhanced sense of personal authenticity for the service worker. The autonomous and creative behaviours that may lead to this authenticity are not well supported by the traditional training materials that usually focus on imparting the explicit facts of the service business (such as standards and procedures) to a new employee. This is concerning, as the opportunity for employees to create value through autonomous displays of creativity is central to continued employment in the current industrial milieu.

The economic, social and cultural dimensions of the current industrial transformation indicate it is a 'wicked problem' (Churchman 1967, Rittel and Webber 1973). Although 'wicked problems' are examined in Chapter 2, it is useful now to note that Alford and Head (2017) offer a useful method for analysing them. They propose two defining dimensions, which relate to the increasing difficulty of any component sub-problems (which combine to form the more complex problem), and the inter-relationships of the various stakeholders and institutions. During an interaction between customer and server, the dimension that drives most complexity is the lack of clarity in both the problem definition and its best solution. Although pluralism and social politics may play a part, this is a problem that is largely defined by any human server's cognitive limitations when operating under a onerous time constraint.

Therefore, this research investigates improvisation as an almost simultaneous means of design enquiry *and* production, through its application to the specific challenge of enhancing the quantity and quality of 'just-in-time' creative service behaviours. This investigation builds on those theorists who advocate design *for* services (such as Manzini; Meroni and Sangiorgi; and Kimbell). Cultivating moments of strategic intuition, where "the achievement and the goal arise at the same time" (Duggan 2007, 23), will be central to the potential solutions that are offered in this project.

This thesis contributes to the clarification of how emerging design *for* service theory relates to the fields of design thinking and improvisation. It also reveals a significant gap in the current design literature with regard to the role of improvisation that is implied by design *for* service theorists, and that is also identifiable in design thinking process models. The thesis explores how improvisation might be more purposefully employed as a novel design method, and describes this through the presentation of an illustrative 'action platform' for customer service innovation (that applies features synthesised from theory to a grounded example). In particular, the improvisation processes that support an almost simultaneous

detection of a problem and generation of a relevant, experimental solution are investigated. This phenomenon appears particularly relevant to the design of customer service encounters, which must be performed spontaneously and without a predetermined service script. My detailed investigation of improvisation processes generates empirical evidence that confirms those features that it shares with design thinking; and how these features might be incorporated in the type of platform that Manzini advocates.

PART A –

DESIGN AND IMPROVISATION IN THEORY AND PRACTICE

Chapter 2 From Design Science to Design Thinking

2.1 Introduction

In order to develop my investigation into the relationship between design and improvisation, I now contextualise my argument for a coherent cognitive process, performed within an extremely short timescale, which is recognisable as a form of design competence. I develop this contextualisation through an analysis of the competing theories that seek to characterise design and design thinking. My examination of design includes its foundational definitions, the evolution of collaborative design, and the emergence of the design thinking movement in its differing forms. I then identify the core dimensions of these differing forms in order to frame the case study in Chapter 6, which contains a content analysis of several proprietary approaches to design thinking.

In addition to an overview of the morphology of design since the 1950s, I also explore claims that, as a function of the field's relative immaturity during rapidly changing social and technological conditions, it has remained vulnerable to colonisation from other disciplines (Poggenpohl 2009, Dorst 2015). In contrast to the way that management-oriented strains of design thinking have sought to annex design in pursuit of consumer-oriented innovations, I shall argue that the performance art of improvisation is a compatible concept that design might usefully integrate as part of its ongoing development.

2.2 Defining design

Despite much having been written about design, it has remained "a fragmented discipline" (Kimbell 2011b). The precise definition of design remains problematic (Galle 2016). Therefore, this section presents a concise overview of the main contributions to the conceptualisations of design. It is notable that the foundational definitions come from the likes of systems theorists, architects and planners (rather than designers), and it is useful to remind ourselves of the evolving – and competing – theories of design. Krippendorf claimed that the lack of a strong, internal research culture "implies a lack of academic self-reflection". He also pointed out that many design researchers, or authors of books on design, are "outsiders" (2006, 31). This background is important in understanding the similarly fragmented conceptualisations of design thinking. However, even more than in the traditional fields of design, contemporary design thinking discourses remain conspicuously under-theorised (Kimbell 2011b, Johansson-Sköldberg, Woodilla and

Çetinkaya 2013, Schmiedgen, Rhinow and Köppen 2016). This seems to have left design thinking open to an uncritical appropriation by the field of management – as part of its pursuit of innovation methods (Nussbaum 2011, Woudhuysen 2011).

The paradigms of Simon (1969) and Schön (1983) are typically identified as being central to the understanding of design as a process (Krippendorf 2006, 31; Poggenpohl 2009, 17; Kimbell 2011b, 290-292). Simon (1969, 55) defined design as being the work of "changing existing situations into preferred ones", with a focus on exploring the possibilities of what might be, rather than the natural sciences' focus on explaining the way things are. Despite Simon's differentiation between design and science, he located the decision-making model of design as a positivistic process, during which information is gathered until there is enough to support a rational choice.

In contrast, Schön (1983) argued that the type of decision making that was central to effective design was beyond a positivistic approach, and that it relied on the suitable framing of the design problem and ongoing reflection in action. This constructivist approach to problem solving rejected pure positivism and called for the integration of arts and science, and thus the engagement of both the intuitive and logical capabilities of the mind (Schön [1983] 1994, 42). In addition to his critique of research's historical reliance on technical rationality, Schön claimed that many of the world's most important problems were beyond the scope of the positivist approach. In fact, Churchman (1967) had previously conceptualised these types of complex problems by referring to Horst Rittel's area of research. Together, Rittel and Webber (1973) defined the characteristics of these 'wicked' problems by contrasting them with the relatively 'tame' - soluble problems - of mathematics, chess, or puzzle solving (which have a single, optimum solution).

Schön ([1983] 1994, 16) made reference to problem situations characterised by "uncertainty, disorder and indeterminacy" to make the point that they were beyond the reach of traditional, deductive methods. Alluding to systems theory, he repeated Ackoff's important claim that "[m]anagers do not solve problems, they manage messes" (1979, 100). Similarly, in his own influential consideration of participatory action research, Reason (1994, 9) also highlighted that the modern crises are: ecological, political, social and personal, in nature and – in not possessing a distinct and innate truth – are beyond the grasp of the positivist tradition. Solutions to such problems will often rely on an understanding of, and influence on, the behaviour of the human masses – and, as such, the human factor cannot be removed. Both Schön and Reason called for new methods of practice, with which to approach complex social and environmental problems.

In further developing this line of thinking, Cross (1982) claimed five distinctive aspects of practice that characterise, what he termed, ‘designerly ways of knowing’. He further argued that designers might tackle the growing number of 'ill-defined' problems, with their ‘constructive’ mode of thinking and their ‘solution-focused’ mode of problem solving. With regard to what is ‘constructed’ in the design process, Cross claimed that designers used various ‘codes’ to convert the abstract requirements of a problem into material artefacts. He termed this special form of communication an ‘object language’, which relied on interpreting and producing such codes (ibid). The generation and use of this ‘object language’ set design apart from the characteristics of either the formal sciences, which rely on mathematics, or the humanities, which rely on verbal communication.

In addition, Cross (2001) went on to examine the interrelated concepts of: scientific design (the application of scientific knowledge to design), design science (the systematic organisation of design), science of design (the scientific study of design) and design as a discipline. This review proved useful in clarifying the ontological and epistemological postures of design research theory. He concluded that the scientific method is most appropriate, and - in fact - may be entirely confined, to discovery of the natural world, which is that which exists within the universal physical laws; whereas the discipline of design is especially suited to investigation of the artificial world, that is the human-made world of artefacts and ideas Popper (2012, 8-9). Cross (2004) was also clear in identifying expert designers, as a cohort apart from the various other groups that may be involved in solving design problems. These other groups include: those informal or non-designers occupied in ‘silent design’ (Gorb and Dumas 1987) and ‘diffuse design’ (Manzini and Coad 2015, 3), as well as the so-called design thinkers, as later described by Brown (2008, 2009).

Irrespective of any privileging of expert designers, Krippendorf cautioned that design, as a legacy of the weaknesses in its internal research culture, and the resulting lack of a clear disciplinary boundary, remains open to a form of “hostile takeover” from “competing discourses” (2006, 33) - such as the three mentioned at the end of the paragraph above. He expressed further concern that Cross’s category of design science yields to the “systematicity of practice” (ibid, 32) that remains characteristic of the natural sciences, and that a science *of* design is unlikely to add a great deal to designers’ own processes. Instead, he proposed a science *for* design that “encourages designers to examine their own practices in their own terms and to disseminate proven design methods among designers, and embraces project research”.

In addition to Krippendorf's claims to the inherent vulnerability of the design discipline, it is important to consider another structural reason for the management field's growing interest in design as a means of innovation. In what he terms the 'trajectory of artificiality', Krippendorf (2006, 4-12) argues that the realm of design reflects the evolution of the artificial, and that this increasingly relies on the primacy of ephemeral language and meaning, rather than material technology. He identifies a shift away from products and services and towards change focussed projects and discourses. The associated move towards the mediation of human change and meaning is the basis of his claim to the increasing human-centeredness of design.

Notably, in their seminal work on economic development and value creation, Pine and Gilmour (1999, 166-170) presented a parallel trajectory – one that charts the transition from the consumption of products and services to the demand for experiences and transformations. This latter element being a form of value creation that actually leaves the consumer meaningfully changed as a function of its influence. For instance, attendance at a concert might provide a highly valued experience, but being guided to play an instrument would create a change in being that was more valued than even the creation of a vivid memory.

This type of shift in human objectives is also foreseen in Maslow's (1943) hierarchy of needs as self-actualisation, and in Jungian theory as the process of individuation, the "conscious realization and fulfilment of the Self" (Snowden 2010, 182). The precise mechanics of these evolutions need not be examined in this research, but it is clear that as the realm of human aspiration is increasingly driven by, what Giddens (1991, 5) - the influential sociologist - termed, the "reflexive project of the self", designers must pioneer new means for designing the ephemeral and immaterial. This is a significant shift away from the era of industrial design, and even the more recent period of experiential design – that encompassed the integration of product and service.

This is not to claim that these various representations of the end-point of human self-development are identical concepts. However, these conceptual destinations certainly seem to be interrelated, and the aspiration to reach them constitutes a relevant and widespread trend (in the post-industrial societies). Furthermore, as a function of being wholly personal constructs, these destinations are the most varied and ambiguous states of the human experience. Consequently, standardised design methods may prove less effective than they were in their application to the comparatively straightforward mission of industrial design. In recognising this change in scope, it seems entirely reasonable to

accept that the environment for design is becoming increasingly complex – and that the field must remain open to new conceptions of design (Raahauge 2015). Both for business and government the economic incentives for responding effectively to this new form of societal 'wicked problem' are very large.

These circumstances have contributed to the growing interest in several contemporary approaches to design which claim to be human-centred (Krippendorf 2004a, Brown 2008; Brown 2009, 39; Kimbell 2011b). However, the emergence of design thinking, co-design and service design has not been a pure extension of the post-war cooperative design era. There have been some important adaptations. The genesis and evolution of design thinking are examined in a following section, but it is first necessary to analyse briefly the differences between cooperative and collaborative design. This will provide conceptual clarity and will establish not only the distinct nature of collaboration but also its central role in a number of the contemporary approaches to human-centred design.

2.3 From cooperation to collaboration – human-centred design

There are several important differences between traditional cooperative design and contemporary co-design, not least the ubiquitous social media and digital collaboration platforms that now support a pluralist approach (Sanders and Stappers 2008, Kimbell 2009, Mortati 2013, 17). The participatory design movement began in Scandinavia in the 1960s, as a means for workplace cooperation and democratisation (Andersen and Hedberg 1977 cited in Gregory 2003) with the user-centred approach to technology development then emerging in the US in the 1970s (Sanders 1992, Clement and Van den Besselaar 1993). Although both of these approaches to cooperative design directly engaged relevant stakeholders, the designer retained the privileged position of interpreting user feedback in order to make design decisions. Stakeholders were primarily involved in commenting on solutions that had been selected by the designer, rather than being involved in the creation of those solutions through involvement in the ideation phase of the design process.

> *In co-design, on the other hand, the roles get mixed up: the person who will eventually be served through the design process is given the position of 'expert of his/her experience', and plays a large role in knowledge development, idea generation and concept development.*
>
> (Sanders & Stappers 2008, 12)

The quotation above indicates two critical points of difference between cooperative and collaborative design. Firstly, the user's personalised experience and their personal expertise of 'the self' have become important process inputs. This is in contrast to a reliance on more generalisable design principles. Secondly, the user is actively involved in the generative phase of design. This is particularly relevant, as some theorists locate the abductive generation of ideas – via reference to a personal 'frame' - as being at the heart of the design thinking process (Dorst 2011, Steen 2013).

Dorst credits Schön (1983) for the introduction to design literature of the term 'framing', and defines it as "the creation of a (novel) standpoint from which a problematic situation can be tackled" (Dorst 2011). Referring to a suitable 'frame' for a design problem supports this abduction, and - as design problems become more complex – the generation of an effective 'frame' may require the synthesis of multiple perspectives (Dorst 2015). Consequently, Steen (2013) defines contemporary co-design as a process of "collaborative design thinking", and associates it with Dewey's pragmatist philosophy (and this point will be examined shortly).

We see then that foundational forms of cooperative design were based upon a model that placed the expert designer at the centre of decision-making, and often limited the involvement of cooperating users to providing feedback on the design concepts that were presented to them. Definitions of contemporary co-design, both in the scholarly and professional literature, position it as a model in which the collaborating users are involved throughout the process, and the facilitating designer employs methods that mitigate the prevailing 'expert and novice' power dynamics. This deliberate counterbalance to social power is performed in the belief that it will lead to dynamic collaboration; and that this will lead to the most effective design outcome (Pirinen 2016). This approach seems particularly relevant to companies, where the prevailing power structures are built on hierarchy and control (Sanders and Stappers 2008, Pirinen 2016).

Unhelpfully, the terms collaboration and cooperation are often used interchangeably, and this continues to be the case in the co-design literature. Nevertheless, and as already explained, these terms have different meanings in the context of co-design and design thinking (as well as in improvisation). Collaboration is especially applicable to group based intellectual endeavours, with its commonly associated behaviours including optimism and a preparedness to work in a generative manner (Brown 2009, 76-78, Pirinen 2016). This is in contrast to the less dynamic behaviour of cooperation, which is understood as the simpler process of working together to the same end, with its commonly

associated behaviours being those of compliance and harmony. The hallmark of collaboration is the embrace of creative tension and constructive disagreement, which supports a shared desire for peak performance (Sawyer 2008, 43-57). In contrast, cooperation is founded on acquiescence to positional power, and the reliance on consensus – which often leads to groupthink (Sawyer 2008, 67).

Poggenpohl (2009, 140) points out that collaboration is "poorly defined in the literature in which it appears". Her analysis of thirteen definitions indicates an important theme in the variety of definitions, and that is the "dynamic balance" between each participant's self-direction and the directing force from elsewhere in the group. She marks out this creative tension as the improvised "integration of multiple perspectives, of course the arguments and conflicting viewpoints, and a synthesis that integrates hitherto isolated or incompatible ideas" (Poggenpohl 2009, 142). She cites Bourdieu's (1998, 81 & 92) analysis, which locates practice as being played out in the absolute present; requiring not just anticipation of what may be seen, but also what is foreseen. In accepting the "unpredictable", "dynamic" and highly variable nature of collaborations, she provides an implicit argument for its reliance on improvisation.

Keast (2016, 160-161) argues that a "high level of trust is key and the relational time frame is longer" in the social scenarios that can effectively accommodate the creative tensions of collaboration. She distinguishes collaboration from cooperation through its pursuit of novelty or differentiation, and although Keast recognises that there is a range of definitions she claims the following consensus on its 'relational dimensions':

> *… an interpersonal orientation (shared reliance on each other for results), mutuality (common vision, values and communication) and the undertaking of joint programs that meet both individual and collective goals (the collaborator's dilemma).*
>
> (Ibid, 161)

However, the collaborative approach is often mistaken or – on occasion - forsaken for the far less productive behaviour of cooperation. Therefore, in adopting any contemporary co-design approach, it is important to remain alert to the tensions that inherently exist amongst co-design participants that bear the weight of clients' and designers' expectations, often in a scenario of power imbalance. This is an aspect of co-design that remains problematic, and Bourdieu (1998, 5) provides a useful model of the political tensions that exist between the forces of economic and cultural capital across the social space, and this marks out the

structural antagonism between the industrialist and the creative designer. Accordingly, the co-design field has developed and applies various techniques that mitigate these tensions, in order to integrate participants into the design thinking process. Liedtka (2018, 72) conceptualises this "blend of tools and insight, applied to a workplace" as a 'social technology'.

Nevertheless, Buchanan (1992), Rylander (2009), Dalsgaard (2014) and Dorst (2015) all argue that design thinking and co-design are essentially embodiments of the pragmatist philosophy, and that argument can be found in Steen's review of co-design:

> *Dewey's pragmatism has two key themes: It focuses on people's concrete practices, their personal experiences, and the role of practical knowledge; it aims at promoting cooperation and at empowering people so that they can improve their situations.*
>
> (Steen 2013, 19)

Despite the focus and aims of the pragmatist approach being so similar to those of collaborative design, it may be that the specific tools and practices of contemporary co-design justify claims to it being a distinct field – or, at least, phase. Steen (2013) writes of "inherent ethical qualities" that are found in the co-design process (as he conceptualises it), and he stresses how its processes and tools are intended to support the imaginative expression of participants. This enables participation in the 'object language' that Cross (1982) identified. Sanders and Stappers (2008) also argue that "new tools and methods" will continue to be required to support suitably rich expression. Nonetheless, central tenets of the pragmatist philosophy are that the world is indeterminate, emergent and "volatile"; and that thinking and doing are actually indivisible (Dalsgaard 2014). Consequently, it seems likely that some of the design methods and tools of the future must combine the 'designerly ways of knowing' (Cross 1982) with the capability to improvise.

This is particularly evident when considering arguments for a human – rather than 'user' – centred approach to design. Krippendorf (2004a) suggested that embracing the inconsistencies and subjectivities that are essential characteristics of 'being human' creates an opportunity to design more effective "processes of human involvement" (ibid, 47), which reflect that meaning is central to design – and that humans "live in different realities and operate within divergent systems of meaning" (ibid, 49). Therefore, an understanding of intrinsic human motivation and a regard for empathy are central to post-

industrial design, and Krippendorf goes as far as to suggest that the aggregating concept of the 'user' is actually a "gross simplification" (ibid, 56).

Developing this line of argument, Kelly and Matthew (2014) contend that the designer must now 'displace use' in favour of a more relationship-oriented approach to human-centred design. They introduce the useful concept of a state of 'pre-use' that reflects the potentialities that might be realised when a human and an artefact interact (and this, in turn, reflects the conceptualisation of service as a socio-material construct that I take in this thesis). As with Krippendorf's emphasis on empathy as a key factor in effective design, the concept of 'pre-use' requires a designer to reveal the latent needs of human consumers. However, such designs must still remain open to the eventual contribution of the human 'co-creator' that they anticipate.

Theorists such as Kimbell and Blomberg (2017), Sangiorgi, Patrício, and Fisk (2017) and Sangiorgi and Prendiville (2017, 254) recognise the need for this new form of 'design in use', in which the consumer's interaction (the absolute specifics of which are unforeseeable) with a designed artefact or service realises its potential (Ehn 2008, Björgvinsson, Ehn, and Hillgren 2012). Given the time constraints that prevail for 'just in time' services, and the associated social complexity that designers must anticipate, it seems new enablers of human-centred service innovation must incorporate ways of supporting empathy, improvisation and design thinking.

To develop my exploration of design thinking, the next section will examine its emergence, its formative association with so-called 'wicked problems' and its evolution into a number of distinctive forms. This will provide clarity on the key characteristics of design thinking and inform the subsequent comparison with the processes of improvisation.

2.4 Defining design thinking

In 1987, Rowe first applied the term 'design thinking' to his close examination of the specific, cognitive processes of formally trained designers. His implication was that they, the architects and urban planners of his case studies, employed a distinct cognitive style in their work. Rowe had examined the 'procedural aspects' of design thinking, and reported that it – in addition to logical informational processing – also relied on the hunches and presuppositions of the designer (1987, 3). In addition, designers were observed to work 'episodically' to reconcile the constraints introduced by the formal

setting of the problem, and the constraints as framed by the designer. Rowe terms this last set of constraints "enabling prejudices" (ibid, 37), which through reference to analogy, were seen to drive design solutions that are both useful and strikingly original.

Buchanan (1992) went on to make the first claims that design thinking was the approach most applicable to 'wicked problems', and he deemed these problems to be beyond the scope of the scientific method, and traditional business or political solutions. These types of problems are characteristically highly complex, ill-defined and without a clearly modelled causation. They are located beyond the frontier of rational understanding (Simon 1992a), often with important cultural dimensions or problematic relationships with technology. Buchanan also argued that the only effective investigation methods were distinct from the reductionist approach, and he thus called for experimental methods that integrated the arts and sciences. This experimentation was not intended to prove specific hypotheses but to create new knowledge that generates original associations and solutions to 'wicked problems'.

It seems likely that the positioning of these 'wicked problems' emerges not only from their complexity but also from their relationship to epistemology; and a consequent claim of the design thinking movement is that its *human-centredness* enables it to deal with these characteristics. In recognising the nature of 'wicked' design problems, Cross (1982, 224) argued that the designer's objective ought simply to be a 'solution', rather than the mastery of the problem itself. In contrast, Krippendorf (2006, 25) explains that given their social dimension, "coming to a consensus on what the wicked problem is, is the problem". Conversely, Galle (2016) contests claims that all design problems are 'wicked problems', reminding us that many design problems are far more straightforward. This background reminds us how problematic establishing the definition and boundaries of design - and design thinking - remains.

Even the term 'design thinking' remains unhelpfully ambiguous. The use of the common noun, by advocates such as Brown (2008, 2009, 6) and Martin (2009), implies that his firm's approach is an overarching concept in the taxonomy of design. In contrast, Nusbaum (2011) and Curedale (2012a) refer to these forms as 'Design Thinking', with the proper noun denoting its status as a specific subset of design. Dalsgaard (2014) illuminates some of the differences between the general infrastructure proposed by Brown, and the narrower - and more technically oriented - processes of professionally credentialed designers such as engineers and architects. Elsewhere, the style of thinking that is

associated with these professionally trained designers is identified as ‘designerly thinking’ (Cross 2007, Johansson‐Sköldberg, Woodilla, and Çetinkaya 2013) .

Although the reasoning for this convention will be closely examined in the following sections, the term ‘design thinking’ will henceforth be used to represent the arguments and methods of the contemporary design thinking movement, of which firms such as IDEO are an influential part. The mental and technical processes of professionally credentialed designers, such as architects and engineers, will be referred to as ‘designerly thinking’.

Curedale (2012a) explains that, although the lineage of new design methods dates back to before the 1950s, the term ‘design thinking’ only became widely used after the start of the twenty-first century. He defines it thus:

> *A methodology or approach that should help you be more consistently innovative. It involves methods that enable empathy with people, it focuses on people. It is a collaborative methodology which involves prototyping. It involves a series of divergent and convergent phases. It combines analytical and creative thinking approaches. Anyone can use Design Thinking. It can be fun.*
>
> (Ibid, 3)

Nevertheless, he also reminds us that there has been “little research to validate claims about design thinking by advocates”, and that the approach has been critiqued as a means to proprietise “existing concepts and frameworks”.

In her detailed review of the literature, Kimbell (2011b) acknowledges the contributions of Cross, Schön and Rowe in positioning design thinking as that which employs special ‘designerly’ cognition and skills to solve problems. In addition, she recognises Buchanan’s position that the design thinking field’s purpose should be the tackling of so-called ‘wicked problems’. However, she also incorporates Brown’s (2008, 2009) and Martin’s (2009) conceptions of design thinking as an organisational resource that enables innovation. She does this with some concern about the apparent lack of reflexivity that is displayed in the IDEO process, in which designers “more or less feel their way” to a solution. Even Martin’s conception of design thinking relies on a largely contingent switching between abductive, inductive and deductive reasoning, as a means of business innovation.

Kimbell also highlights the “distinction between thinking and action” (2011b, 301), that appears in accounts of design thinking, as a contradiction - in light of the broad consensus

on its similarity to the pragmatist approach (see end of previous section). Although she concludes that design thinking remains "undertheorised and understudied", she rejects Nussbaum's (2011) view that it has been a "failure".

Johansson-Sköldberg, Woodilla and Çetinkaya (2013) also recognise the competing assessments of design thinking as either a "panacea" or a "fad", and the research community's concerns about its theoretical grounding. In addition, they emphasise the lack of connection between the way design thinking is conceptualised in the design and management literature. Accordingly, they organise their critical review around the two "distinct discourses" of designerly thinking and design thinking.

They go on to identify the contributions of: Simon, Schön, Rittel and Webber, Cross and Krippendorf (theorists whose influences have already been examined in relation to the definition of design) as the five sub-discourses of designerly thinking. Johansson-Sköldberg, Woodilla and Çetinkaya claim that any informed contribution to the academic arguments relies on an embrace of this "pluralistic perspective", and that this state of affairs indicates "maturity" in the discourse.

They also identify three distinct form of design thinking, which are: IDEO's ways of working (Kelley 2001, 2005, Brown 2008, 2009), a way to approach indeterminate organisational problems (Dunne and Martin 2006, Martin 2009), and as a part of management theory (Collopy and Boland 2004). Of these sub-discourses, it is the IDEO approach that is most influential in practice. The firm is the largest design and innovation consultancy, and it is closely associated with the Hasso Plattner Institute of Design at Stanford University. This relationship provides IDEO with academic credentials that do not spring directly from its own publications. Johansson-Sköldberg, Woodilla and Çetinkaya (2013) explain that the claims of Brown (who is the CEO of IDEO) are grounded in a number of "success cases" that are written for managers, rather than any "theoretical framework".

Indeed, Brown's position is that many organisations can benefit from IDEO's form of design thinking by adopting its proprietary approach, and that: "Design (sic) is now too important to be left to designers" (Brown 2009, 37). He outlines the key steps in reasonable detail, and there is no suggestion that they are a trade secret. Broadly, he conceptualises design thinking as an exploratory process that passes, iteratively, through "three spaces of innovation": inspiration, ideation and implementation (Brown 2009, 15-18). This is done with the goal of harmonising three other "overlapping criteria" for design success:

desirability (as defined by the user), feasibility (technologically possible) and viability (economically sustainable). The creative approach is enabled by the repeated move through phases of divergent thinking (creating choices) and convergent thinking (making choices), with decision making being guided by prototyping and the judgement of the design thinker (Brown 2009, 66-67).

Nonetheless, what remains unclear is the influence of the professional design thinker (such as those hired by clients of IDEO), the design capability of such professionals, and Brown's often overlooked claim that successful design thinking must include a systems level of view of the innovation challenge (2008, 2009 184-188). This view must also reflect the organic and social nature of contemporary organisational systems (Ackoff 1994), and requires imagining, "how we might create highly flexible, constantly evolving systems in which each exchange between participants is an opportunity for empathy, insight, innovation, and implementation" (Brown 2009, 188). I shall explore this system level view in more detail in Chapter 3 but will now summarise the claims about design thinking's improvisational nature.

These disciplinary considerations and the simultaneous (but contradictory) claims to IDEO's approach to the collaborative *inclusion* of its stakeholders and *exclusivity* of its qualified practitioners, leave its epistemological contribution to the established field of design unresolved. As with design *for* services theorists, Brown argues that many complex problems demand a systemic response, in which decision-making is largely devolved in order to support an impromptu response to local circumstances. His position suggests that both design that supports improvisation and design that is improvised are required for effective design thinking. My review of the extant design literature indicates that this aspect of design remains unexplored. In her case study of the Scandinavian Participatory Design principles being applied to a collaborative information systems project, Gregory makes several specific mentions of this approach remaining open to the "improvisation and autonomy of individuals and local teams" (2009, 250 & 258 & 263). Nonetheless, there is no analysis of what the specific processes of improvisation were, or how they were actively encouraged.

2.5 Conclusion

Although a number of recent design thinking research articles (Sirkin and Ju 2015, Sirkin et al. 2016a, Sirkin et al. 2016b) do provide a closer examination of improvisation, its application is limited to a means of enquiry and testing. Gerber (2007, 2009) and (Lock

2013) previously argued that improvisation is an appropriate tool for some types of design enquiry but, to the knowledge of this researcher, its underlying processes and potential for more general application as a means of production remain unexplored in the design literature.

Dorst foresees the risk of the professional designer "disappearing" into the team effort that reflects the evolving design process (2009, 287-288). This is as a consequence of the expanded concept of design and contemporary expectations of design as a collaborative practice. However, if collaboration (as I have confirmed) is inherently improvisational in nature, and collaborative design is an increasingly important part of design practice, why have improvisational processes not been analysed and considered for more active incorporation into the design field? Furthermore, if contemporary design increasingly involves the creation, or mediation, of meaning (Krippendorf 2006, Kimbell 2011b, Johansson-Sköldberg et al. 2013, Galle 2016) and the socio-cultural world in which design practice is situated is emergent (Rylander 2009, Dalsgaard 2014) and "always in the making" (Hallam and Ingold 2007, 3), why has improvisation not been examined more fully by the design community? In this context, what is improvisation and how might it be enrolled in design thinking and practice?

On the basis of these gaps in the research it is necessary to take a closer look at the theories and practice of improvisation. This I shall do that in Chapters 4 and 7 - respectively, but as this thesis is specifically concerned with the application of improvisation and design to the customer service industry the next chapter will examine the most relevant aspects of design *for* services theory. To contextualise this examination, I shall first explore the most influential conceptualisations of service (to which the arguments of the design *for* services theorists respond) and reveal the role of improvisation that also exists within this social domain.

Chapter 3 Conceptualising Service as a Social System

3.1 Introduction

Kimbell and Blomberg (2017, 82) argue that the overall field of service design remains "emergent and heterogenous", and it is thus open to new interpretations and methods. Therefore, it is important to clarify that my research concern is 'design *for* service', as defined by Kimbell (2010, 2011a, 2017) rather than 'service design' *per se*. As several design *for* service theorists propose design thinking as a means of supporting service innovation, I provide conceptualisations of both design *for* services and design thinking. I recognise that there is a substantial body of literature that examines service design in theory (Kimbell 2009, Kimbell 2011b) and in practice (Stickdorn and Schneider 2010), but the focus of my exploratory research is the identifiable "moment of engagement" (Curedale 2012, 16) between the server and the served. To my knowledge, the 'socio-material' dynamics (Kimbell 2017) at work in this specific moment are still to be fully explored in the published service design literature. In order to specifically frame the design *for* services arguments, and to reveal the need for improvisation that these arguments imply, I also provide a conceptualisation of service as a concept (in itself) and explore customer service as a form of social system.

3.2 The 'moment of truth'

To establish the multi-dimensional nature of contemporary services, I take Manzini's definition:

> *Services are complex, hybrid artefacts. They are made up of things – places and systems of communications and interactions – but also of human beings and their organisations. They therefore belong to the physics of natural and technical systems and to biology, but also to sociology and the culture of human beings. Permeated with human activity as they are, with a network of relationships between people, and people and things at their centre, they can never be reduced to the simplicity of mechanical entities.*
>
> (Manzini 2011, 1)

In light of this context, Manzini claims (provocatively) that services are "largely undesignable" (ibid), and that designers must therefore respond to the challenge presented by this apparent paradox by developing methods that support the co-creation of service, rather than attempting to design specific solutions for unknowable problems. He terms these types of enabling methods 'action platforms' that "make a multiplicity of interactions possible" (ibid, 3). Before I examine his claims in detail, I shall draw on Kimbell's (2011a) review of the various conceptualisations of service in order to identify the form that presents the greatest opportunity for the application of 'improvisational design'. I show this to be Normann's (1991) theorisation of the 'moment of truth', which reveals the dynamics of the service encounter interaction. Successfully navigating this 'moment of truth' very often demands the effective improvisational performances that Pine and Gilmore (1999, 124-127) claimed are essential for creating high value customer service.

Kimbell's examination of "different ways of approaching service design" (2011a, 41) analysed the perspectives of designers - and those from services marketing, operations management and information systems. Despite the interrelationship of these fields and disciplines in the design and development of services, Kimbell identified significant variety in the way that they each theorise services. I shall draw on her analysis to reveal the various formulations of service, before a more detailed examination of the theory of the 'moment of truth' (Normann 1991). This examination will also locate the 'moment of truth' within the competing service management theories, and explain why it has become more relevant to the contemporary industrial environment – as well as arguing that a form of improvised design might be applied to good effect in this particular problem domain.

Following her review of the management-oriented literature, Kimbell (2011a) claimed that the fields of marketing and operations had dominated services research but a generalisable definition of service remained elusive. The main schools of argument were divided between the framing of 'everything' as service in which the "conventional division between goods and services does not matter" (ibid, 43), and the search for a new paradigm that reflects the means of delivering and consuming services. The remainder of this section summarises the most influential contributions to the competing theories and draws a number of important conclusions that contextualise the rest of this chapter.

On the basis of the research survey conducted by Zeithaml, Parasuraman, and Berry (1985) services were once deemed to be almost wholly distinct from products due to a number of key differences, including their intangibility, variety, lack of perishability and simultaneous production and consumption. These factors are the opposite to those of many

material products that are produced to an exact specification and carefully stored for subsequent consumption, either alone or in a combination with other products (Vermeulen 2004). However, Pine and Gilmour (1999) argued that products and services were increasingly being consumed as part of a single, consumer experience and that the careful integration of these elements presented an opportunity for creating additional economic value. In light of this trajectory for modern service-based economies, new paradigms for the investigation and development of services were required.

Lovelock and Gummesson (2004) produced an analysis of different service types and demonstrated that the factors of intangibility, heterogeneity, inseparability (of production and consumption) and perishability, were not generalisable across all services. Indeed the increasing provision of services via digital channels or through industrial processes meant that services increasingly did not fit within the prevailing four-factor paradigm. However, where services were delivered person-to-person and 'live' the original paradigm remained highly applicable. This would particularly be the case for 'in person' customer service that is delivered just in time, as this remains strongly characterised by its social interaction – rather than any material interaction. For instance, an interaction with a human bank teller may rely on their accurate delivery of a number of routine business processes but it retains a significant social dimension. When an Automatic Teller Machine (ATM) substitutes this bank service, the business processes may then be endlessly replicated with exact precision but the previous social dimension is replaced with a material interaction (with the automated artefact).

Vargo and Lusch (2014) also argued that the competences of the provider (that are expressed through the medium of their service offer) are the underlying basis of exchange and that the 'service system' (encompassing the supplier and consumer – along with all other resources incorporated in the exchange) should be the "unit of analysis" for service science (Furrer et al. 2016, 4). These concepts are expressed in their S-D logic framework, which locates customers as co-creators of value. The Service Logic arguments of Grönroos and Gummerus (2014) similarly suggest that value creation occurs across three overlapping domains, in which the customer can generate additional value through 'upstream' interaction with the supplier prior to exchange, and then - subsequent to the domain itself - exchange through 'downstream' interactions within their own social eco-system (Furrer et al. 2016, 4 & 5). For instance, the ultimate purpose of a customer's (upstream) request for a specialist cleaning service for their vintage car may be to impress the vehicle owner's neighbour (downstream).

In both of these frameworks, the potential value of the supplier's offer could not be realised without the customer's situated state of need and their action(s) in the consumption or application of the service. For example, a cleaning service only has value for customers who for localised reasons (such as the opportunity cost of their time) wish to employ it. The customer also needs to be in possession of the material items that require cleaning (whether that be as a legacy of past events or anticipation of future requirements). It is this constructed potential for reciprocity that provides the means for mutual value creation via economic exchange. The relational interaction of service providers and customers prior to the moment of exchange is likely to enhance the eventual level of mutual value creation, through a closer matching of provision to situated needs (Sanders and Stappers, 2008, Steen, Manschot and DeKoning 2011, Furrer et al. 2016).

Meroni and Sangiorni (2011) observed that the two distinct streams in design research and practice had become the 'interaction paradigm' and the 'functional paradigm', with the former focussing on *how* services are performed and the latter on *what* services can offer. More recent research identifies the benefits of the purposeful and complementary design of sustainable product-service systems (Ceschin 2013). The careful design of such systems also includes the opportunity for enhanced participation and engagement of consumers in the overall experience, creating an emotional resonance that is usually absent when functionality and / or quantity are the focus (as well as the improved matching of provision to local need, as mentioned in the paragraph above).

However, the concern of this thesis is customer service that is performed 'live' and just in time. Despite the lack of a unified definition of services, theorists recognise that the face-to-face "service encounter" (Kimbell 2011a, 44) retains the four characteristics of intangibility, heterogeneity, inseparability (of production and consumption) and perishability. The most influential conceptualisation of service in this 'interactive paradigm' is Normann's 'moment of truth' (1991), which reveals the dynamics of the service encounter interaction. Successful navigation of the 'moment of truth' very often demands the effective improvisational performances that Pine and Gilmore (1999, 124-127) claimed are essential for creating high value customer service.

The quotation below identifies the key factors that must be analysed to understand and then influence the 'live' and 'in person' service encounter.

> *To take a metaphor from bullfighting, we could say that the perceived quality is realized when the service provider and the service customer meet each other in the arena. At that moment they are very much on their own. What happens then can no longer be directly influenced by the company. It is the skill, the motivation and the tools employed by the firm's representative and the expectations and behaviour of the client which together will create the service delivery process. A large service company may well experience tens of thousands of 'moments of truth' every day.*
>
> (Normann 1991, 21).

Normann locates the 'moment of truth' as the key unit for analysis of any service delivery system. He claims that, "any enquiry into quality must start from the microsituation of client interaction" (1991, 201) and that the 'key question' for service quality researchers is what mechanism can reliably support success in these 'micro situations'. Given the pivotal role of human behaviour in any such system, he argues that 'social innovation' is the method best pursued by firms. He locates this as a "means whereby quality and cost efficiency can both be achieved" (ibid, 23). This is an important concept as such innovation offers a method of breaking what is generally accepted to be a linear relationship between quality and cost (in that quality cannot be increased without a proportionate increase in cost).

Nevertheless, the workplace culture that supports the ongoing 'micro-innovation' that responds to the situational challenge of the service 'micro-situation' must incorporate particular human-centred dimensions – as well as achieving clarity on how it constrains or enables behavioural variety (ibid, 106). Normann identified that perceived autonomy was central to the server's inclination to offer the 'uplifting' behaviours required at the 'moment of truth' (ibid, 90). In addition, empathy towards clients' needs was required to diagnose what type of behaviour might prove effective (ibid, 201). Even with the motivation and capability, service employees require training in a range of 'interactive skills' (ibid, 107) that support the effective deployment of their chosen behavioural approach.

It is in light of such conceptualisations that Manzini has made his claim that services are almost beyond design, and that designers must therefore respond to this challenge by developing methods that support the co-creation of service under its typical time-constraints. This suggests that designers must leave the resolution of their design to the emergent behaviours of the employee and customer, who act amidst the 'situated details' of each service encounter. If this is the case, can the final configuration of such encounters

be claimed as having been designed? So that we might better comprehend Manzini's somewhat paradoxical claims, I shall now return to an analysis of the design *for* services arguments that respond to them.

3.3 Designing for services

In the introduction to this chapter I explained that the mode of service design that is most relevant to my argument is that which addresses design *for* service (rather than the specific tools and methods of service design). To establish why that is the case, I shall initially draw on Kimbell's (2011a) analysis of the theoretical landscape, in which she stated there was "relatively little literature analysing the work of professional service designers" (ibid, 41) and that there had been "relatively little theory-building" (ibid, 41). Writing in the same year, Manzini concurred that most discussion in the field had "focussed on the tools" that designers might use (2011, 5).

Nevertheless, through her case study method Kimbell identified two distinct approaches to service design. The one that she described as being "least understood" (2011a, 42) was design *for* services. This approach conceptualised services as, "value relation within a socio-material configuration involving diverse actors including people, technologies and artefacts" (ibid, 42). In this paradigm, the focus of the designer is the influence of the relational interaction of the provider and consumer, along with any other actors or artefacts involved in the situated service eco-system. The competing paradigm was that which positioned service design as a means of problem solving within the "conventional distinction between goods and services" (ibid, 45). Sangiorgi and Prendiville recognise service design as a human-centred approach that fuses the "dual dimensions of understanding and engaging people in the design for better service experiences" (2017, 2), and under time-constraint this dynamic socio-material interaction closely resembles the concept of the 'moment of truth'.

In addition to the design *for* services paradigm defining service as the socio-material interaction of provider and consumer (rather than in its distinction from goods), this approach also formulated design as a form of enquiry within an unfolding problem space (rather than as the production of a specified solution in response to a problem that has already been mastered). Accordingly, our focus will remain on how design theorists framed what the "exploratory process of enquiry" (ibid, 45) was intended to achieve when designing *for* service.

Kimbell explained that if service is to be defined by its relational exchange of value, it simply is not possible to design a complete product or solution that is optimal in all circumstances. This is because these situated circumstances are unforeseeable at the time of design, and the subsequent arguments for 'displacing use' and 'design in use' support her claims. Kimbell also highlighted Manzini's argument that, "what is being designed is not an end result, but rather a platform for action with which diverse actors will engage over time" (ibid, 45). I introduced the concept of the 'action platform' in Chapter 1, and I now provide a detailed explanation and analysis – as well as pointing to an apparent gap in Manzini's definition.

> *[An action platform is] a system that makes a multiplicity of interactions possible. It does so by fixing use modes, making certain kinds of behaviour more difficult and others more probable while leaving opportunities for action and interpretation open.*
>
> (Manzini 2011, 3)

The intended effect of these 'action platforms' is to influence the probability of certain behaviours being enacted by bringing a localised context to their 'viability' and cultural merit (2015, 98). Manzini also refers to these platforms as 'sense systems', in that they enable 'sense making' rather than 'problem solving'. He positions these two concepts as "autonomous dimensions" that "co-exist and interact" (2015 35-36). He further illustrates this point by contrasting service models that either view the unpredictable moments of human interaction as a "problem to be minimised" or as a "value to cultivate" (2011, 3). The tendency towards either of these contrasting service models is an important decision for the designer.

This paradigm of design *for* service is a specific approach to service design and it requires the designer to understand service, "as enacted in the relations between diverse actors, rather than as a specific kind of object to be designed" (Kimbell 2011a, 42). This socio-material context requires designers to be alert to the social and relational aspects of the service encounter, as well as the physical artefacts that may play a part in each interaction. These artefacts might be an unavoidable and functional part of an encounter (such as a payment terminal) or may be purposefully introduced to act as optional 'props' that infuse a particular meaning by making, "visible and comprehensible the complexities of the service" (ibid, 48). Building on Star (1989) and Bowker and Star (2000), Carlile (2002) has conceptualised these artefacts as 'boundary objects' that serve as vehicles for the transfer

and transformation of knowledge between actors. Whether the meaning ascribed to these objects is fixed (and explicit) or flexible (and symbolic) is another choice to be made in the design of any 'action platform' in which they play a part.

Kimbell and Blomberg (2017) identify three distinct perspectives on what the 'object of service design' should be. The first is that of the 'service encounter', which recognises the importance of the personal resources of both service workers and customers at the point of interaction (along with their interactions with artefacts and technological systems). The second is that of the 'value co-creating system', which positions the interrelationship of the various components in the system of exchange as the dominant factor in value creation through service. The third is that of the 'socio-material configuration', which (although it identifies the 'service encounter' as part of the configuration) recognises the influence of the social-practices and politics that frame the encounter between service workers and customers.

> *This approach opens up for inquiry consideration of the constituents of a service and explores how they are assembled dynamically through practice, emphasizing the sociality and messiness of the worlds in which the services exist.*
>
> (Kimbell and Blomberg 2017, 86)

In line with this claim by Kimbell and Blomberg, I take the 'socio-material configuration' as the focus for the 'action platform' that is investigated in this thesis. I locate the 'service encounter' as being central to face-to-face customer service whilst also recognising the need to design *for* service in a way that addresses, "the messy realities shaping service encounters and how outcomes are achieved" (ibid, 91). The dynamics of creative collaboration and organisational power dynamics are of particular relevance in my examination of the social system that frames the human behaviours that construct a 'service encounter'. I also place importance on the politics of whether organisations, designers, workers or customers should be privileged in determining what constitutes 'desirability' within any service design approach (ibid, 90), and this is particularly relevant when viewed through the lens of the 'design in use' concept that I have explained.

Manzini argues that design thinking is "a methodical approach and a mental attitude that all social actors should adopt when they find themselves faced with 'wicked problems' (i.e. with problems that are complex and ill-defined)" (2015, 34). In section 2.4, I explained that 'wicked problems' were highly complex problems without clearly

modelled causation. Buchanan (1992) argued that these types of problem were beyond the scope of the deductive method and that design thinking was the most useful means for addressing them. I also presented Ackoff's point that "[m]anagers do not solve problems, they manage messes" (1979, 100). Kimbell and Blomberg repeatedly refer to the 'messiness' of the environment in which service encounters occur. These arguments would seem to position the service encounter as a 'wicked problem' and design thinking as an appropriate means of response.

However, as both Kimbell (2011a) and Manzini (2011) point out there is the 'macro' problem that may be addressed by design *for* service but there is also the 'micro' problem of optimally resolving each individual service encounter. Both theorists are silent on what might actually occur here with regard to the application of design. Although, any 'action platform' might act to harmonise the social and material components of the service interaction (and its effect might increase the probability of maximum value being created during the socio-material synthesis of each encounter) it is the service worker and customer who are the situated actors. We have seen that the professional designer must inevitably remain at a temporal and spatial distance. How then might the service worker think and act in a way that applies design thinking during that particular moment?

The next section will explore the broader framing concepts of the social system, as one that potentially informs both the 'macro' and 'micro' challenges of customers service and improvised design. As the role of systems has recurred thematically in my examination of design thinking, design *for* service and the socio-material construct of service, I'll also provide a detailed definition for a system (as this is particularly relevant for consideration of the nature of service systems).

3.4 The customer service 'action platform' as a social system

Krippendorf (2004a) claimed that the 'Western industrial era' enshrined a false view of human society as a rationalistic, hierarchical and mechanical system from which continued social 'progress' would inevitably emerge. He critiques this early industrial design as simply finding "pleasant forms to cover ugly mechanisms" (ibid, 44). This paradigm understood the human user to be a logical and homogenous participant in a stable system; and to be one who was reliably and predictably motivated by external factors, such as consuming the fruits of production. However, the technological complexity that emerged from the subsequent emergence of the digital age moved human factors researchers to regard human users as "unreliable, unstable and unpredictable" parts of otherwise effective

technological systems (ibid, 48). Thus, designing to constrain these undesirable 'human' factors became their goal.

I have already referred to Russell Ackoff's claim that "[m]anagers do not solve problems, they manage messes" (1979, 100) in the preamble to the examination of 'wicked problems', and his seminal work in the field of systems theory provides further context to the nature of this type of problem, as well as defining three types of system (Ackoff 1994). The next section will present a summary of his arguments and then synthesise them, with particular emphasis on the conceptualisation of a service enterprise as a system. Many of the service management problems presented in the preceding sections of this chapter spring from the failure to recognise the type of system of which managers and designers are themselves a part. The system level view provides some options for the resolution of these various problems.

"A system is a whole consisting of two or more parts … that cannot be divided into independent parts or subgroups of parts" (ibid, 175). In the case of a customer service system, management are not wholly separate from employees, who – in turn – are not wholly separate from customers. The three constructed groups are contained by culture and society (Crouch and Pearce 2012, 8-12). This is a manifestation of a *social system*.

Ackoff (1994) identified the existence of three distinct forms of system: mechanical, organismic and social. Depending on the type, either they are closed – operating without influence from the environment external to the system, or open – being subject to varying degrees of influence from the external environment. Mechanical systems may be open or closed, made-up of non-essential parts and essential parts (those without which the system could not function) – and have only a function, rather than any purpose of their own. However, despite having no choice in its operation, the function of these mechanical systems does serve the purpose of an outside entity. This may be that of its users or its designer.

Organismic systems "are ones that have at least one goal or purpose of their own" (ibid, 175) the most basic being their own survival. The individual parts of this type of system have no self-purpose, but do serve the purpose of the organismic system as a whole – for instance, in achieving survival. These systems are "necessarily open" and "can only be understood when considered in connection to their environments" (ibid, 175). Again, the parts of these systems may be essential – or not.

Social systems are open systems that have their own purpose, have some essential parts that have their own purpose, and are contained by larger systems that have a purpose of their own. Ackoff argued that, although social institutions could also be conceptualised as a machine or organism, "systems in which people play an essential role cannot be well understood, hence managed, if viewed other than as social" (ibid, 176). This claim has a profound relevance for how leadership of customer service teams might best be undertaken. Ackoff also explained how the conceptualisation of the industrial system has evolved.

In his consideration of the "enterprise as a machine" (ibid, 176) he provides a reminder of how the Victorian era industrial worker was viewed as a part in a great machine, within a worldview that still embraced an ordained social order. Acute imbalances in capital and education meant that workers were easily interchangeable and plentiful, as well as powerless to oppose the demands of the industrialist – and the mechanised nature of available work.

In the post-Victorian era, an organismic concept of an enterprise emerged as a function of the social and technological changes driven by World War One. Workers' growing expectations, extracted from industry with the assistance of the strengthening union movements, and rapid increases in technology served to make labour more expensive and less easily interchangeable: "Although the interests and purposes of workers were not considered to be relevant to employers, their functioning was" (ibid, 178). The decline in privately held industrial empires through the exchange of partial ownership for the quantities of market capital needed for continued growth, served to dilute power and control – and make the industrial systems more open to external factors.

Following a further acceleration in technology, and the education and skill levels needed for its employment, workers became increasingly valuable to the enterprise. With the widespread rejection of autocracy and increased personal economic freedom - in industrialised nations, employers had to take regard of their employees as purposeful beings of their own. To be engaged productively, workers had to be retained for much longer periods of employment, and these post-war workers then raised their children with far fewer restrictions than they themselves had been. This led to a further increase in the levels of autonomy and variety that workers demanded from their employers, and the rise of the consumer economy.

This recount of industrialisation provides the critical context for not only the emergence of the service enterprise as a social system but also the resulting message for those wishing to lead such systems. Most strikingly, this systems thinking approach makes convincing claims that attempting to optimise the performance of the individual parts of a system, is likely to diminish the overall performance of that system. It is the interaction of the parts that must be optimised, rather than their individual actions. It is worth quoting Ackoff at some length in order to accurately frame the inferences that will follow:

> *A system can affect its parts in two ways: by either increasing or decreasing the variety of behaviours they can display. Since social systems contain purposeful systems as their principal parts, and purposeful behaviour consists of choices of ends and means, social systems must either increase or decrease the variety of choices available to their parts. They may increase the variety of some types of behaviour, and reduce that of others.*
>
> (Ackoff 1994, 180)

The similarity to Manzini's concept of an 'action platform' that finds "a balance between what we try to fix and what is to be left free" by "making certain kinds of behaviour more difficult and others more probable" (2011,3) is clear. However, Ackoff's argument for the means of interactive value creation in a social-system also parallels the model in which service is realised through social interaction that in turn releases the potential value that was stored in the provider and consumer's reciprocal resources and needs (Furrer et al. 2016, 454).

Ackoff argues that if the overall value of a social system is greater than the sum of its constituent parts, then the incremental value must be created by the interaction of, at least, some of these parts - and this incremental value is termed synergy. He states that the appropriation of synergy must derive from the opportunity to interact as a member of the system to achieve something that could not otherwise be done alone, and this parallels the socio-material configuration of the service encounter. Consequently, to increase the opportunity for creating synergistic value, a social system must increase the variety of behaviours open to the members of that system. This might be achieved by deliberately designing the mode of leadership to achieve this end, by enabling and intensifying the range of interactions amongst the members of the social system, and the members of that system with its containing system(s). Thus, "[i]t should enable its parts and its containing systems to do things that they could not otherwise do" (ibid, 181).

The level of centralisation in an organisation is inversely proportional to the level of variety of choices available to its members. Therefore, to increase variety it may be argued that authority should be *devolved* to increase levels of autonomy in those areas of the organisation that are furthest from the central authority. It should be noticed here that in a customer service environment this is usually the server, who is furthest from the centre and closest to the customer. As my examination of the service management literature earlier in this chapter revealed, it appears that the interface of service worker and customer is an area that is ripe for innovation. If viewed through the systems lens, it is also the juncture of the 'upstream' capabilities and resources of the service provider and the 'downstream' needs and resources of the service consumer. It seems reasonable to identify this as the nexus that provides greatest opportunity for synergy, but it is also the focal point of complex social power dynamics.

3.5 Conclusion

We have seen that there are competing theories of how service might best be defined. I have taken the service logic models of Varsch and Lusch (2004) and Grönroos and Gummerus (2004) as the most relevant. These theorists argue that service is framed by the interactive system of the provider, the consumer and the consumer's social eco-system (along with all other resources incorporated in the exchange). More specifically, I have identified Normann's (1991) model of the 'moment of truth' as being the representation of service that is most suitable for intervention through a fusion of improvisation and design.

Normann locates the 'moment of truth' as the foundational unit of service, and he terms it the "microsituation of client interaction" (ibid, 201). Clemmer and Sheehy (1992) built on this formulation of service to develop their associated model of 'perceived value', which reveals the important psychological effect that drives ever-increasing consumer expectations. Given that the expectations of the consumer in the 'micro-situation' of the service encounter are always growing, the service firm must respond with a systematic means of 'micro-innovation'. Manzini (2011) and Kimbell (2011a) both recognise that designers must respond through design *for* service (as the situated details of the service encounter can never be known in advance).

In this context, those firms that must provide customer service face-to-face have increasingly sought to empower those employees working at the interface with the customer. This devolution of the employer's power is intended to reflect the complex interrelationship of server and served, through which the service experience is co-

constructed. Nevertheless, what often appears to have been overlooked is the capability of autonomous servers to draw upon their own lived experiences to optimise this human interaction (the so-called 'moment of truth') through improvisation and innovation. This is particularly strange given that the 'design in use' concept anticipates that the human consumer will improvise and innovate during *their* interaction with a service or artefact.

Although Manzini's overarching concept of the 'action platform' is an appealing response, the designer can only work at the system level and there still needs to be effective problem solving at the granular level of each service encounter. Kimbell has pointed out the problem of "the impossibility of being able to fully imagine, plan or define for a service since new kinds of value relation are instantiated by actors engaging within a service context" (2011a, 45). In addition to the challenge of the service worker formulating and delivering an apt response *just in time*, we must remember Krippendorf's cautionary claim that given their typically social dimension, "coming to a consensus on what the wicked problem is, is the problem" (2006, 25). How then might any 'action platform' support a service worker to not only recognise these micro-problems but also respond to them *systematically* as opportunities for service excellence?

These two issues are not directly addressed by Manzini's conception of an 'action platform'. Based on the demonstrable requirement to act spontaneously (given time constraints) and creatively (given the need for novelty), is Manzini arguing the case for improvisation? If so, he does not explicitly state that this is the case. It again seems that improvisation is assumed to be an obvious and straightforward matter, without any close examination of the social conditions and processes that support its effective delivery. It seems that improvisation is deemed to be a desirable resource for designers but that it is unworthy of (or beyond) further enquiry or explanation. How do we 'improvise'? How can we be equipped to improvise more effectively? Ambiguity in this regard is all the more surprising given that both designing and service provision are increasingly characterised by a collaborative approach, and improvisation is often identified as an exemplar for such creative collaboration. In order to reveal its underlying processes and to understand its status as a model for collaboration, I shall now examine the theory from the field of improvisation in appropriate detail.

Chapter 4 An Examination of Improvisation in Theory

4.1 Introduction

In this chapter, my review of improvisation theory reveals that its processes closely resemble the collaborative aspects, conceptual phases, and experimental orientation of design thinking. I show that the performance art of improvisation relies on the spontaneous selection and enactment of apt behaviours in an emergent interplay of actors, and that these characteristics match both the prototyping orientation of design thinking and the production of novel but meaningful customer service behaviours. Given these similarities, it seems reasonable to consider improvisation as part of an expanded design concept (Dorst 2015, Raahauge 2015).

I also review literature that argues for the pivotal role of improvisation in everyday life, as well as examining a number of practical applications of improvisation within social and design research. In Chapter 2, I explored how management-oriented strains of design thinking have sought to incorporate design in order to support consumer-oriented innovation, and in this chapter I examine arguments that improvisation involves processes that might be usefully integrated into design practice.

4.2 Defining improvisation and its processes

Lewis and Lovatt define improvisation as "the act of creating something new, on the spur of the moment" (2013, 46) and claim that its spontaneity sets it apart from the broader category of creativity, as this leaves "no opportunity for correction and no time for conscious preparation" (ibid, 46). Their definition is closely aligned with those found elsewhere in the scholarly literature (Mendonca 2005, Mendonca and Wallace 2007, Berk and Trieber 2009). Furthermore, Vera and Crossan claimed that improvisation presents a strategic competence for the modern firm that embraces "loose boundaries and minimal hierarchy" (Vera and Crossan 2004, 727). This potential advantage is particularly relevant to forms of customer service that must be created and delivered 'just-in-time', as opposed to products that can be manufactured with minimal variation and stored in advance of demand.

Hallam and Ingold (2007, 1) argue for four defining characteristics of improvisation, these include it being: generative (creating cultural artefacts), relational ("attuned and

responsive to the performance of others"), and temporal (occupying an identifiable period of time). The fourth characteristic is "the way we work", and they argue that improvisation is an inherent aspect of how we function in an "unscripted" and "unscriptable" world (Hallam and Ingold 2007, 12-13). Whilst they offer several, slightly differing, definitions of the process of improvisation, Vera and Crossan identify its two defining dimensions as: creativity and spontaneity, and present their definition of improvisation as "the spontaneous and creative process of attempting to achieve an objective in a new way" (2004, 733).

It is important to note that Vera and Crossan's field of inquiry was theatrical improvisation, which is engaged in knowingly but is unplanned and framed by nothing more than the guiding improvisational processes. This method requires a deliberate suspension of analytical judgment by the practitioner. Lewis and Lovatt (2013) state that this approach is at odds with the habituated convergent thinking that dominates everyday life. They argue that our reliance on organising mental schemas is a default means of navigating the natural and social worlds, and we improvise within these constraining frameworks. Miner, Bassof and Moorman stated that, "stored knowledge and skills shape improvisation" (2001, 304). They termed these pre-existing mental influences "referents" and explained that "the referent both infuses meaning into improvisational action and provides a constraint within which the novel activity unfolds" (2001, 332).

Empirical research into these processes, or even development of convincing conceptual models, has been scarce (Mendonca and Wallace 2007, Hallam and Ingold 2007, 1). Nonetheless, it seems reasonable to argue that, as improvisation is inherent to human relationships and behaviour (as seen in any emergent conversation or extemporaneous response to an unexpected social occurrence), it has become an unconscious competence. This state of mastery represents 'forgotten expertise', and may be perceived as intuition (Sinclair 2010). Although routine behaviour may be constrained by societal norms (Schein 1984) and mental schemas (Lewis and Lovatt 2013), there is always the opportunity to recognise these constraints and respond in a novel manner to recurring situations. Even when working within the established, and often implicit, framework of social norms, an element of improvisation is frequently required to fill the gaps in the social script (Hallam and Ingold 2007, 12-13). This is as the 'script' is contemporaneously constructed by social actors who must not only anticipate the consequences of their choices, but also the choices that might be made by others. On this point, Hastrup argued that, "social life and individual action are closely intertwined with anticipation and creativity" (2007, 194).

Vera and Crossan suggest that improvisation's inherent influence "may be the force behind adaptation and evolution in all human relations" (2004, 728). That is certainly a very strong claim, but it does seem sensible to assess whether improvisation may be an important part of the creativity associated with the innovation process (although it may often be remembered as being planned and rational, after the event). Despite the limited amount of research, it does seem that there are identifiable processes of improvisation that can be transferred, and purposefully applied, to domains other than daily social life (Hallam and Ingold 2007, 14; Juliet and Moor 2009, 14). For instance, Miner, Bassof and Moorman (2001) observed improvised outcomes whilst they were researching new product development activities in separate firms. This was without any prompting of the research subjects. Why might these potentially valuable applications be so often overlooked?

A credible explanation for the apparent disregard of the seemingly ubiquitous influence of improvised behaviour is the concept's popular and dominant associations with the fields of jazz music and comedy. This legacy may fuel preconceptions that improvisation is unreliable and incompatible with responsibly planned adult behaviour (Kuhn and Holling 2009, Mueller, Melwani, and Goncalo 2012). With no particular powerbase, or advocacy, it is also unsurprising that improvisation is most typically considered to be wholly unstructured and appropriate only as a source of entertainment. Nevertheless, in recognising the recurring, dramaturgical structure that frames personal narratives and storytelling (Goffman 1971, 1-14), it seems natural that those forms of entertainment which remain most compelling are actually those which also reflect enduring aspects of shared human experience. Similarly, Svanaes and Seland (2004) contend that drama presents "the best metaphor for everyday and social life, and that we all play roles most of the time." Pine and Gilmore (1999, 104-105) claim that work is "theatre" and that the theatrical approach is not intended as a "metaphor but a model". It is worth a deeper exploration of improvisation to better understand what it might offer us, in addition to its most usual manifestations of music and theatre.

Pine and Gilmore (1999, 122-137) also explain that even within a tightly scripted performance, an actor may seek to improvise in order to enhance their own, their fellow performers' and their audience's close attention. This capacity to add nuanced novelty, within a structured framework, seems supportive of heightened engagement. They model this phenomenon via the relative stability, or dynamism, of both the script and the performance. For instance, the continued popularity of long-performed plays and musical pieces seems to prove this case; as it is the variety in the performance, rather than the

script, which sustains long-term interest. Pine and Gilmore locate improvisation as the most dynamic form of performance, as both the underlying script and the performance are highly changeable. Despite this framing model the actual process being applied by a fluent improvisational performer must still be determined.

Vera and Crossan (2004) identify the distinct preoccupation of improvisational practice as a constant focus on the underlying process that supports desirable results, rather than the specific results themselves. They explain that, in order to qualify as improvisation, this focus on process must prevail under circumstances of time pressure, ambiguity and uncertainty. Although its focus on process (rather than immediate results) is a hallmark of improvisation, there is generally little exposition of the features of this 'process', and it will be useful for me to explicitly state those aspects that are reported in the literature.

Mendonca and Wallace (2007) identify alternating phases of divergent and convergent thinking as being central to the "trial and error" of improvisation, and its balance of problem finding and problem solving. Lewis and Lovatt (2013) suggest that during these phases the participants are moving between the generation of obliquely relevant, fragmented solutions (inspired by their sub-conscious store of schemas) - and then intuitively selecting options for action. Goldschmidt suggests that the frequency of shifts between divergent and convergent thinking during creative design may be the most meaningful measure, "at least as far as design thinking is concerned, but probably in other creative activities, as well" (2016, 121). She points out that at the neurocognitive scale the shifts between divergent and convergent thinking may be so frequent that these modes are, effectively, concurrent. In fact, Miner, Bassof and Moorman argued that a defining characteristic of improvisation was not only the temporal convergence of "design and action" but also the significant overlapping of those two processes. Accordingly, they refined the general definition of improvisation to propose it as, "the deliberate and substantive fusion of the design and execution of a novel production" (2001, 313-4).

Another guideline of the improvisational approach is to evaluate performance based on the presence of quality, rather than a preoccupation with perfection. There is a welcome regard for imperfection, as this suggests that the practitioners are 'doing it right'. Performers deliberately delay their arrival at a resolution in order to prolong the rhythm of the improvisational flow, and to explore the possibilities of emerging ideas. This patient progression, through effective phases of divergent and convergent thinking, is an indication that an improvised performance is going well. These are two of the key features

that subtly point the way for the collaborating performers, but detecting the entire underlying nuance may demand their full attention.

> *Improvisation is not about doing one thing right - output view, but about continuously doing things right - process view.*
>
> (Vera and Crossan 2004, 738)

Another prominent aspect of improvisation is its connotation with group activities and, indeed, much of its perceived charm lies in the ability of fellow practitioners to spontaneously create a novel and entertaining performance. In accepting that there is no script or score, the audience may perceive that – when skilled practitioners reach their group flow state – an effortless synchronisation has been achieved. In contrast, the reports of performers indicate that they are in an intense state of concentration, with their faculties fully occupied by the act of producing the next facet of the performance (Berk and Trieber 2009). The next words or actions occur to them just an instant before being performed for the audience.

The critical means of linkage between these extemporaneous and self-guiding performance choices is the technique of 'yes, and …', which is "accepting the offers of others and building on them" (Berk and Trieber 2009). The commitment to this technique requires a genuine, imaginative engagement with each idea – and the willingness to explore its possibilities. This commitment to exploration will often reveal divergent possibilities (Kuhn and Holling 2009) that were unanticipated by whomever proposed it. Although this is just one of the techniques that contribute to the process, this unconditional acceptance of 'the offer' is also termed the "only unbreakable rule" (Vera and Crossan 2004) in an improvised performance. The practitioner is required not only to accept the offered premise but also to support and develop it. This aligns with the field's stated philosophy of embracing imperfection and incorporating any deviations into the flow of the performance.

Indeed, it is this emergent chain of phases of divergent and convergent thinking, that are made tangible through performed behaviour, which typifies effective improvisation and provides observable evidence that the supporting process is being followed. It ought also to be noted that this approach is the precise embodiment of creative collaboration, as defined in section 2.3. This interdependent process also enables group problem finding, and an exploration of an emergent problem space (Mendonca and Wallace 2007). Under these conditions the 'right' answer is deemed to be any that emerges and is effective, rather

than it being the specific predetermined objective of a well defined and rehearsed plan. In addition to the authority to determine quality, the direction of the production (Berk and Trieber 2009) is devolved to the performing group, save for reference to a preceding set of guidelines that serve to bound the action (Barber 2007, 33-34). For instance, there may be specific character roles assigned, or a limited range of stage props provided. Nevertheless, within these deliberately introduced constraints the individual performers enjoy full autonomy, and these constraints actually serve to promote heightened ingenuity.

Certainly, the case for improvisation is not an argument for its universal application. Individuals or organisations must discriminate in recognising the type of scenarios where it is an effective, and responsible, course of action. Mendonca and Wallace (2007) stressed that improvisation is not inherently positive or negative - and is no guarantee of success. Rather it is (when deployed in the appropriate circumstances) the most probable means of achieving a broadly defined, desirable goal. A willingness to accept this risk seems to be central to the practice. In order to succeed more often and with greater distinction, the possibility of failure must be embraced. These features are obvious parallels to the prototyping methods found in design, in which 'sacrificial concepts' (IDEO 2011, 42-43) are made tangible and presented to users in an experimental fashion.

If improvisation provides a reliable catalyst for spontaneous and creative behaviours, which may constitute prototypes – then the replication of its defining features may prove fundamentally relevant to the case for fusing improvisation and *design in an 'action platform' for customer service innovation*. Improvisation's established pedigree in the fields of live performance also suggests its usefulness to the realm of customer service, where appropriate behaviours must be performed on an emergent basis, and within operational constraints. Mendonca and Wallace (2007) make a similar point by citing the application of improvisation to emergency management, which requires emergent action in real-time and under significant constraint.

In their research into formal learning environments, Berk and Trieber (2009) proposed that the distinctive natures of cooperation, collaboration and improvisation could be expressed through their differing locations across the two dimensions of structure and control; with cooperation having the most of these characteristics and improvisation having the least. It should also be noted that structure and control seem antithetical to the type of innovation 'action platform' that is being explored in this research project. The active development of improvisational capabilities, that support cognitive immersion in practice, is also claimed to be an enabler of deep learning; that creates "lasting memories of lessons learned" (ibid).

Berk and Trieber also state that, despite the relevance of creativity and spontaneity to the 'Millennial' generation, it seems that only the fields of business and management are researching and scaling the potential benefits of improvisation - despite the opportunities "for application to virtually all other disciplines".

Given these claims regarding the usefulness of improvisation have been made by organisational and creativity theorists, the next section will review literature that examines some specific examples of its application – in order to frame further its relevance to design.

4.3 Applications of improvisation

> *Improvisation is not a process we can avoid; it is part of our life and the life of organisations.*
>
> (Vera and Crossan 2004, 744)

Although improvisation is most commonly associated with jazz music, comedy and theatre, it is also purposefully applied in a number of other fields - as seen in Mendonca's (2005, 2007) research into emergency management. However, there are other, specific instances of application that are more relevant to this project. Augusto Boal's 'legislative theatre' provided a forum through which the most detached groups of citizenry could communicate their lived-realities to local policy makers (Howe 2009). In these fora, the participants switch between the roles of actors and spectators to communicate (through improvised action and words) their situational realities, and explore how new outcomes might be brought about. Howe contrasted the usual regard in social science research for "detached expertise" (ibid, 239) with the rich and dynamic processes of the Boal's "embodied think tanks" (ibid, 240).

In place of the scripted performances of role-play, and the traditional reliance on subsequent verbal critique, the scenarios identified for examination in the 'legislative theatre' are wholly improvised. Spectators are encouraged to join the performance (often replacing a fellow participant and re-playing or continuing a scene) to demonstrate or test their ideas. The emphasis is on collaboration, novelty, communication and exploration through action - rather than abstract verbal debate. Of course, the validity of the improvised action comes from the authority of participants in their own, embodied experience. As Howe puts it, "such projects deconstruct hegemonic notions of expertise". This privileging of embodied, personal experience of 'the self' was similarly reported by Sanders and Sappers (2008), in relation to co-design. These researchers highlighted the

role of the design user as an expert in their own needs and routines, and as an active partner in the generation of design concepts.

Howe (2009) explains that Boal's intention was for the experience of the 'legislative theatre' to provide democratic access to public expression, both in authoritatively communicating a personal experience and in informing the direction of any subsequent, related policy. Dorst's (2009, 287-288) concerns about the professional designer eventually "disappearing" into this type of collaborative design effort have already been raised, but practitioner roles that embody expertise, or power, continue to influence both collaborative design and applied improvisation. Whether such roles should be classified as controller, enabler or catalyst, remains unclear. Howe relays Morse's (2004) comments on the influence of 'knowledgeholders' who "have critical information about an issue but may not be directly affected by the issue or its consequence" (2009, 247). Morse suggested that their distance from the problem under examination may "help the group understand the systematic nature of a problem or opportunity and its interconnected parts" (ibid, 247). The authoritative claims of the participants (or users) may, reciprocally, bring insight to the knowledgeholder.

Howe (2009) also explains the role of 'joker', which is well recognised in the 'legislative theatre' and combines responsibilities for facilitation and provocation, and who acts as "a more pedagogical, less ceremonial master of ceremonies". The role requires mediation between actors and spectators, and must assist the emergence of the dramatic representation of the group's knowledge "in all ways possible" (ibid, 254). She also reports that Boal has likened this role to that of a midwife, facilitating but not controlling the dramatisation. Undoubtedly, the balance of these responsibilities requires the ongoing and spontaneous exercise of personal judgment in order to maintain a creative and dramatic flow, with the minimum exercise of positional power. It seems that these positions of power and expertise may be legitimate during the collaborative effort, subject to the appropriate exercise of reflexivity by the person acting as 'joker'.

It certainly seems that the role of 'joker' resembles that of a contemporary co-designer, and Lawrence and Hormess (2015) recognise that their own design practice of 'investigative rehearsal' is wholly modelled on the format and processes of the 'legislative theatre'. In fact, the main way that they contribute to the collaborative design process is by playing this facilitative role during improvised, experimental performances that investigate specific service interaction behaviours. Miner, Bassof and Moorman (2001, 309) named the range of new behaviours arising from improvisation as being "behavioural

productions". However, what they observed were behaviours that were inadvertent byproducts of innovation processes, rather than those created by deliberate design practice. In order to develop this examination of how improvisation might be applied in design practice, the next section will review some detailed instances of how it has been deployed specifically within that field.

4.4 Applications of improvisation within design

Sirkin et al. (2015, 2016b) have performed design research using a 'Wizard of Oz' method, in which a human plays the part of the automated system that is being tested. This method enables a user interface to be meaningfully tested via construction of a rudimentary prototype (with a hidden human acting as the systems 'processor' and 'motor') prior to any investment in an advanced automated version. Gerber (2007, 2009) has also argued for the wider role that improvisational techniques might play in supporting various forms of interaction design. These instances of applied improvisation have been limited to its use as a method for co-design enquiry, rather than as a means of eventual production. However, it will be useful to focus now on some specific examples of this type of method, to identify the detailed processes that have been reported in the literature.

In his study of field-based collaborative design, Lock notes that the value provided by many, contemporary, electronic devices is based "less and less" (2013, 17) on their physical and (particularly) mechanical properties. He presents the long-established techniques of theatre as a "new and novel" (ibid, 18) means of collaboratively assessing interactive designs. He stages large-scale, mechanised representations of new electronic devices, and argues that the unconscious expectations and traditions of the past serve to provide a useful framework for a designed user experience. In his research, this widespread, and shared, cultural knowledge frames: "improvisation around a prototype device", creation of "alternative realities", assistance in solving "open-ended design problems" and improves communication between "various stakeholders" (ibid, 19). In these instances, Lock is referring to the features of formal performance being specifically applied to his interactive design method, but he is cognisant of Boal's incorporation of expert audience members. He makes comments on it being "essential to include real-world users" to avoid the resulting exploration being confined by "existing assumptions and prejudices" (ibid, 19).

As for the capability of customers to play a spontaneous a part in such a design performance, Howe (2009) stated that dramatic training was not necessary, with flexibility

and the ability to "play in an artificial situation" being quite sufficient. Building on the work of Svanaes and Seland (2004), Lock (2013) makes the same point. He reports that dramatic training is not required to be able to fully participate, as the ability to play is mastered in childhood – and then forgotten in adulthood. A potentially challenging aspect in designing an industrial environment where improvisation can occur as needed, or desired, is that those who most vigorously display creative behavior are rarely well regarded, or encouraged, by either school (Kuhn and Holling 2009) or the workplace (Mueller, Melwani and Goncalo 2012). However, those who successfully display creative behaviours may provide purposeful disruption of embedded, convergent thinking (Lewis and Lovatt 2013), which can prove fruitful in enabling a divergent approach.

As already mentioned, Mendonca (2005) revealed emergency management to be a rich field for the investigation of improvised behaviours, as an emergency - being unexpected and requiring immediate action - creates disruption and often demands a creative and improvised response. In Lock's method, it is the careful staging of compelling anachronisms, through mechanised representations of new electronic devices, which creates a 'micro-emergency' for the participant being engaged. The moment of interaction is unexpected and invites an immediate response, which promotes novel behaviour and enables understanding (a form of micro-innovation).

Svanaes and Seland (2004) employed a comparable selection of methods in their low-fi prototyping with users. They variously termed their approach: cooperative, user, participatory and end user design. They concluded that the design of their interactive methods was critical to optimising the level of participant engagement and resulting innovation. In line with the general theories of improvisation, Svanaes and Seland highlighted the benefits of allowing the outputs to "evolve" from the process, and that this required a "delicate tradeoff" in the modes of passivity and intervention from the developer. Indeed, the role that is intended to help connect users to the design challenge is positioned as being the most critical – but learnable.

Svanaes and Seland (ibid) claimed that, during the most effective prototyping sessions, those participants adopted a problem-finding approach – leaving the problem solving, for the designer: "it is the role of 'real' designers to make the low-fi prototypes into something that actually works". Their research suggests a dual requirement for facilitator and designer, with a deliberate blend being most effective. They argued that, as a biological and cultural inheritance, human beings are both "playful improvisers and "born tool-makers". Thus, when presented with the appropriate resources and reconnected to the

'forgotten expertise' of imaginative play, it should be no surprise that meaningful innovation can emerge. As I explained earlier, the 'joker' role is expected not only to catalyse exploration but also to apply personal judgment in guiding the resulting journey. It seems that the term 'co-designer' has now emerged to define (broadly) this type of role, suggesting that as with so much that appears innovative, it is a fusion of already well-established concepts.

4.5 Conclusion

In Chapters 2 and 3, I located design thinking and design *for* services within the framing body of design theory. I also revealed the *implied* role of improvisation in designing *for* services and design thinking processes. My analysis of improvisation theory (in this chapter) has confirmed that design thinking and improvisation share a number of common features – including some important core processes. However, these fields are regarded very differently. For instance, design thinking has been theorised by the academic community *and* has been applied in management practice. Although some instances of its important wider uses have also been explored in this review, improvisation is still mainly regarded as a means for entertainment,

Nevertheless, I have shown that both fields rely on creative collaboration, an embrace of imperfection and a bias towards experimental action. In addition, purposeful phases of divergent and convergent thinking have been identified as an important feature of both improvisation and design thinking. The collaborative orientation of both fields reflects the influence of social power dynamics, and improvisation responds through a culture that accommodates imperfection and the "unbreakable rule" of 'the offer' (Vera and Crossan 2004, 739). This rule requires any collaborating performer to accept the premise that is put to them, and to positively develop that same idea. The facilitative role of 'joker', that is central to several forms of applied improvisation, also bears close resemblance to the responsibilities and methods of a design professional who is collaborating with a group of non-designers.

In addition, the investigative and experimental orientation of improvised behaviour parallels the prototyping methods of design. Miner, Bassof and Moorman (2001, 309) use the term "behavioural productions" to denote those novel behaviours that might arise (and also be tested) through improvisation. In relation to the interplay of positional power and the preparedness to tolerate the risk of failure during the prototyping phase of both design and improvisation, the matter of constraints appears important. Research in the field of creativity (Haught-Tromp 2017, Stokes 2009, 2014) confirms that the careful design of constraints,

which deliberately confine the problem space, promotes novelty. These constraints may provide the creative nexus that sits between convergent and divergent thinking. For instance, the 'offer' that must be accepted in improvisation is a point of convergence that requires a level of novelty in the performer's response, as they must operate within that constraint. In design, Rowe (1987, 78-79) refers to these constructs as "autonomous or independent constraints", which are not inherent to the design problem but may be purposefully introduced to initiate "a reformulation that greatly facilitates further problem-solving activity" (ibid, 79).

Despite the apparent contradiction of 'improvisational design', in which a coherent process recognisable as 'design' is performed in an extremely short timescale, Goldschmidt's (2016) research suggests that divergent and convergent thinking *can* occur concurrently. As explained, this type of spontaneous insight has long been associated with intuitive expertise (Koestler 1975, 137; Duggan 2007, 14; Dorst 2009, 285) in which the "achievement and the goal arise at the same time" (Duggan 2007, 23). Miner, Bassof and Moorman refer to this as a "fusion" of design and execution (2001, 314).

With regard to a containing system that frames design *for* service, design thinking, improvisation and customer service, Ackoff's (1994) seminal conceptualisation of a social system should also be kept in mind. This is as it offers an explanatory model for the systematic production of social value through the optimised interaction of human behaviour. This type of system is one in which the purpose of the both the system and its parts is the creation of synergy, through the increased variety of social interactions that is facilitated within the system. Recognising these dynamic factors, Sangiorgi, Patricio and Fisk have written more recently about needing to design for "interdependence, participation and emergence" in such complex service systems (2017, 49). Manzini's concept of the 'action platform' appears to be a promising means of realising such a design, and supporting customer service innovation.

In the two case studies that follow, the claims of theory will be tested through a close examination of specific instances of design thinking and improvisational practice. This analysis serves to identify the defining characteristics of both fields, and provides an empirical basis for my claims to the shared features of design thinking and improvisation. A third case study will examine models for customer service innovation that demonstrate the relevance of 'action platforms' to that industry. The dynamic social factors that frame service interaction will also mark it as the type of complex problem that might benefit from the purposeful application of design thinking (Buchanan 1992).

I then make arguments for how the characteristics identified in the theory and practice of design thinking and improvisation might be synthesised to produce a conceptually coherent customer service 'action platform' that supports emergent innovation. This platform will then be illustrated in its application to the field of customer service interaction, which would benefit from a reliable means of supporting micro-innovation. Although the resources available for the production of a PhD thesis necessarily limit the scope of the case studies, the specific examples are significant within their respective fields and the results are widely applicable.

Chapter 5 Methodology

5.1 Introduction

In the previous chapter I identified the intrinsic role of improvisation in contemporary models of design *for* service and revealed a number of conceptual similarities between design thinking and improvisation. In this chapter, I now set out my approach for identifying the core processes of design thinking and improvisation, so that those of the latter may be empirically compared to those of the former. My approach relies on the construction of knowledge through the analysis of several case studies, and this analysis then serves as the basis for a number of propositions for the design of a customer service 'action platform' that supports emergent innovation. I have interpreted the arguments of design theorists to reveal the need for improvisation that is implied therein, and construct new knowledge in my empirical analysis (and comparison) of design thinking and improvisational process models. I interpret how the findings from this comparative analysis might be synthesised within the theoretical construct of an 'action platform' to enable practical application to 'real-time' customer service. I then explore how this practical application may be manifest in an actual industrial setting, thereby demonstrating how new knowledge on design thinking, designing for service and improvisation can be usefully applied in the field.

Hart's (1998) typology of the claims that may be made by researchers provides a useful framework for the interpretive and constructivist paradigm that I adopt in this thesis. The claims that I make are about those of concepts (about the meaning of things), interpretation (about how some data should be understood) and policy (what should be done instead of what is currently being done). Therefore, I adopt an overarching qualitative methodology, and argue for an interpretive and constructivist approach (Reason 1988a, Denzin and Lincoln 2005, 192-193, Clandinin 2007, 150-151, Collins 2018, 38-39).

Before presenting a more extended argument for my methodological approach, I must highlight the significant role that the concept of narrative (Collins 2018, 40) plays in this design research; as the materials from the design thinking texts and the improvisation troupe are expressed in that form. These narratives are the *content* that I analyse in the case studies. Although all three design thinking texts adopt an explanatory style, each explains not only the steps of its particular approach but also the framing rationale for such an approach. These rationales provide the *story* of these approaches to design thinking, as well as reflecting the

voices of the authors and advocates. These advocates also claim to anticipate the voices of collaborating non-designers who will participate in future practice. The ethnographic interview with the Glenn Hall and the reflective commentary from his colleagues are also narratives. The 'investigative rehearsals' that I observe and analyse are performances (by the Just Improvise troupe), and customer service encounters are constructed through the performances of the collaborating parties. Collaboration, improvisation and customer service are all social processes, and Hastrup reminds us that, "the social is not only revealed over time, but constructed 'with' time" (2007, 194). As I have reiterated, the concept of designing under the constraint of 'real-time' is central to this thesis.

As I explained in Chapter 2, the concept of contemporary design has expanded to include the importance of making meaning and mediating culture, and these are now goals of many designers. Practicing design thinkers explore and then synthesise the narratives of stakeholders in order to gain insight into the nature of complex innovation problems. In improvisational performance, the creation of original and unfolding narratives is central to the discipline, with practitioners remaining mindful of the audience's expectations and predictions, both having being formed by the historic narrative tradition. These archetypal stories survive in the collective consciousness and are informed by cultural and social identity (D'Alleva 2012, 88-93). Although often beyond immediate conscious recall, the archetypal narratives serve to frame individual expectations and play a role in the construction of shared meaning. Accordingly, it will be useful for me to make some brief points about the field of narrative research in preparation for my closer consideration of an appropriate methodological approach.

As part of acknowledging the importance of competing narratives in this research,, I must expose not only my personal role in the interpretation of the narratives of research participants but also my construction of new narratives – including those of the reflexive self (Pearce 2008, Collins 2018, 39). My research presents and analyses the competing narratives of: design thinkers, improvisational performers, business leaders, service workers and myself. Each of these parties operates with bounded and imperfect knowledge (Simon 1992a). These interdisciplinary stakeholders may be indirectly connected, but operate from different social contexts. My final research objective aims to reconcile these different perspectives through a process of synthesis. This synthesis contextualises a theoretical and illustrative concept for a customer service 'action platform' that is intended to support emergent innovation (Sangiorgi, Patrício, and Fisk 2017). In doing this I construct new, practical knowledge from theory.

Nevertheless, given the disputed definitions of 'narrative' and the absence of absolutely clear technical boundaries, care must be taken to ensure methodological coherence (Andrews, Squire, and Tamboukou 2008, 1-3 & 14). I reveal this methodological coherence through the exposition and mapping of each of the methods in this chapter. Despite the risks associated with adopting an approach that is framed by narrative research, such an approach is also recognised as an effective means with which to investigate the multiple, and sometimes contradictory, perspectives in the interdisciplinary field of human-centred design. Again, the apparent contradiction of improvised design is an important aspect of this thesis.

In addition, Heinen (2009, 1-3) states that narrative appears increasingly popular within distinct scholarly communities as it offers an effective means of knowledge transfer across disciplines (although she also cautions that full application of this capability appears rare), and knowledge transfer from the field of design to contemporary service management is a goal of this project. Given the "ubiquity of narrative" (Clandinin 2007, 6-8), it is fitting that there is a range of distinct methods within the overall qualitative methodology of narrative research. A number of these distinct methods are specifically relevant to design research (Crouch and Pearce 2012, 106-111), and I explain their application to this project is throughout the remainder of this chapter.

5.2 Methodology

The purpose of this research is to interpret and construct, rather than to 'predict and control' (Clandinin 2007, 4), in addition to the understanding of design thinking and improvisation – as well as the application of the latter to the former. As Krippendorf argued:

> *An objectivist epistemology studies how the human mind comprehends or accurately represents ontology. A constructivist epistemology, by contrast, studies how humans or members of a community come to understand. Its criterion is not ontology but viability, the ability of knowers to successfully enact their understanding.*
>
> (2006, 21)

My review of the methodology literature has highlighted a number of important themes, including the need to depart from the positivist tradition in pursuit of new knowledge in the creative fields (Reason 1988a, Schon 1994, Barrett and Bolt 2007, Haseman 2007). Given the range and orientation of my research objectives, and the unsuitability of a positivistic

approach, I employ a qualitative methodology. In keeping with the interpretive philosophy that frames qualitative research (Saunders, Lewis, and Thornhill 2012, 163), multiple data sources are examined to develop a rich *bricolage* of interpretations (Denzin and Lincoln 2005, 4-6, Crouch and Pearce 2012, 70) in response to my central research question.

In light of my stated research objectives, and the learning opportunity presented by the application of the various methods now available to the design researcher, I propose a mixed-method approach (Crouch and Pearce 2012, 129-130) – broadly incorporating:

1. The detailed and critical review of the scholarly literature relating to the theories of design, service management and improvisation (which I completed in Chapters 2 to 4).
2. An empirical investigation of the relevant fields of practice i.e. a prominent approach to design thinking, improvisation and customer service, through a series of case studies. Each case includes an analysis of the findings relevant to its specific field of enquiry.
3. The development of an illustrative 'action platform' concept that might support innovative customer service behaviours. This concept reflects my synthesis of the findings from the fields of theory and practice - particularly the intersection of design thinking and improvisation processes, which are identified in the two steps above.

Given the interdisciplinary nature of human-centred design in general, and this project in particular, I have already conducted a substantial literature review in order to ground my research in the relevant bodies of theory. My analysis in Chapter 3 revealed that the conceptual arguments of the design *for* service theorists imply that improvisation is necessary to resolve emergent service encounters, and that the creative problem-solving facility of design thinking should ideally play a role in optimising such encounters. Despite this apparent paradox, my analysis also suggested that design thinking and improvisation share a number of common features; particularly their collaborative orientation, the purposeful application of divergent and convergent thinking, and a bias towards experimental action. In order to provide an empirical basis for these claims, the theoretical arguments are tested in the analytical case studies of practice, which are presented in the sixth, seventh and eighth chapters. The empirical evidence produced in these case studies is then synthesised in Chapters 9 and 10.

Yin (1994) defined the primary feature of a research case study as: an empirical inquiry that "investigates a contemporary phenomenon within its real-life context" especially

when “the boundaries between phenomenon and context are not clearly evident”. As a result of this ontological position, he designates a number of technical aspects for the inquiry, particularly the tendency of “variables of interest” to outweigh data points. This requires the triangulation of data, with the goal of validating any convergence, and “the prior development of theoretical propositions” to guide the collection and analysis of this data. Given (2008, 892-894) defines this approach of ‘triangulation’, as being a figurative replication of the navigational technique that uses the convergence of two distinct points of view to deduce a third dimension.

In her analysis of the case study method, Eisenhardt identified a blend of technical strengths and weaknesses. She argues for the likelihood of generating novel theory, particularly when trying to reconcile apparently “contradictory or paradoxical evidence” (1989, 546). In addition, she claimed that resulting constructs are likely to be testable, if properly grounded during the theory building stage, and that “[r]esultant theory is likely to be empirically valid”, as it is derived from the empirical evidence found in the case(s). Eisenhardt’s position contextualises both my goal of reconciling the seemingly oppositional fields of design and improvisation, and my decision to ground the conceptual development of the ‘action platform’ in actual findings from a previous ethnographic field study.

Nevertheless, the temptation to over-extend the scope of any emerging theory to accommodate the details of the case must be resisted. There is also the reciprocal risk that findings from the case may not be convincingly generalisable beyond the specifics of that case. Thus, there is the benefit of connecting back to existing, established theory (as I have done). Eisenhardt and Graebner argued, “[s]ound empirical research” (2007, 26) relies on a strong connection to the relevant literature and the selection of an inductive method is most convincing when it is directed towards a significant research problem for which there is a gap in the existing theory. Hence the detailed examination of the research problem domain in the customer service case study presented in Chapter 8.

In the introduction to this chapter, I explained that a variety of narratives were the *content* to be analysed in the case studies. In order to ensure “qualitative rigour” (Gioia, Corley, and Hamilton 2013), I follow the Gioia methodology in conducting a combination of inductive and deductive content analyses to generate empirical evidence of the shared features of design thinking and improvisation. I do this by conducting an inductive content analysis (Hsieh and Shannon 2005) of the three design thinking texts to identify the key features of each process model. I use this analysis to develop a categorisation matrix that

reflects the primary features of the IDEO / Stanford approach to design thinking (Elo and Kyngäs 2008). I also produce definitions for each of these primary features.

This categorisation matrix then supports a directed content analysis (Hsieh and Shannon 2005) of improvisation, as the data from the interviews and observations can be coded against the definitions. Given that I am a solo researcher, there is no problem with ensuring intercoder reliability (MacPhail et al. 2016). Should there be groups of data that do not match the definitions, I consider whether they constitute a primary feature of improvisation that contrasts to those of design thinking. This method allows the 'mindsets and methods' of improvisation to be compared and contrasted to those of design thinking. My analysis reveals a number of important similarities between the two fields, and this is significant as it suggests that there may be aspects of design thinking that (being naturally compatible with improvisation) can be usefully applied to highly time-constrained service encounters. Although these aspects might be improvisational in nature, when combined they constitute a discernible form of design competence (Dorst 2009, 285-287, Mosely, Wright, and Wrigley 2018).

As Eisenhardt and Graebner stated, "[m]ultiple cases also create more robust theory because the propositions are more deeply grounded in varied empirical evidence" (2007, 27), and I employ each of the three, distinct, qualitative forms (Crouch and Pearce 2012, 124-125, Clandinin 2007, 445). These forms are understood as:

a. Intrinsic – where the case study is focused on understanding the case under examination as a matter within itself.
b. Instrumental – where the case(s) under study is being used to bring meaning to other phenomena or issues.
c. Collective – where a number of case studies may be assembled in an inter-connected manner to provide a wider and richer perspective on a subject matter.

As an important element of my instrumental case study of improvisation, I conducted ethnographic interviews (Frankel 2009, Forsey 2010) to capture and examine detailed recounts of how improvisation practitioners act and their routines in regard to collaborative behaviours. I then conducted an experiment to compare the data collected in these interviews to some specific instances of improvisational practice. The practitioners reviewed video recordings of their performances, and provided a commentary on their thought processes during each performance. This review occurred immediately after the end of each performance in order to enable recollections of their cognitive processes that

were as clear and accurate as possible. As the performers could not share their thoughts whilst performing, my approach is a derivative of the 'think aloud' method (Ericsson and Simon 1993). This method has previously been adapted for analysis in both user interface and physical performance environments (Jorgensen 1990, Eccles and Arsal 2017). Extracts that are representative of the dominant themes that emerged during the data analysis phase of this experiment are presented in the case study.

As I have explained, my analysis of these narratives is "not concerned with the *form* of narratives but their *content*" (Heinen 2009, 200). This type of content analysis is distinct from classical, literary narratology and its focus on the structural features of the text (Bal 1990). The focus on content reflects the constructivist paradigm that the 'storytellers' are unavoidably subjective in assigning meaning to their decisions and actions (Heinen 2009, 199). Given the equally unavoidable subjectivity in the qualitative analysis of the content (Krippendorf 2004b, 16) and co-construction in the resulting narrative, a number of verbatim excerpts are presented in the chapter, in order to enable direct review by the reader. The application of this technique is intended to support, "replicable and valid inferences" being drawn from the text within the social context of its use (Krippendorf 2004b, 18-19).

Eisenhardt and Graebner claimed that the reliability of interview data could be improved, and the influence of "impression management" (2007, 28) reduced, by methods that limit bias. These include the involvement of "numerous and highly knowledgeable informants who view the focal phenomena from diverse perspectives" (ibid, 28). However, I argue that the interview participants are experts in their field, and they are not being asked to comment on the matter of improvisation in design, but engage in a form of reflective practice (Schön 1994). In acknowledgement of the inherent biases in a small sample of interviews, I use Goffman's (1971) dramaturgical lens to analyse participants' responses. This extra layer of analysis highlights the most likely impacts of respondent subjectivity and impression management.

The in-depth case studies of the fields of design thinking and improvisation, themselves framed by the relevant bodies of literature, are intended to not only assist in "building theory" (Eisenhardt and Graebner 2007, 26) but also promote insight with regard to the researcher's own preconceptions and personal practice (Pearce 2008). The design of an illustrative solution for an innovation 'action platform' that might support innovative customer service behaviours (that I propose in Chapters 9 and 10) is also intended to support praxis (the dynamic interplay of theory and practice) through its hypothetical application to an everyday customer service problem.

I make the conceptual problem of customer service innovation 'real' by grounding it in the findings of a highly relevant ethnographic field study. I clarify my professional involvement in this field study – and my experience of working with IDEO - in a short narrative exposition of the insights from this interdisciplinary journey (Heinen 2009, 1-4). This piece of narrative integrates the recurring concepts from the case studies of practice (Heinen 2009, 198-199), in order to finalise a conceptual framework for the design of a customer service 'action platform'. This platform is intended to mediate the subtlety and complexity of several archetypal service scenarios; with the service worker's behaviour being a collaborative and design-informed response to the firm's improvisational 'offer'.

My contextualising research about appropriate art and design research methods (Crouch and Pearce 2012, Schon 1994, Reason 1988a, Barrett and Bolt 2007) has provided a useful frame for contemporary practice-led research. This body of literature supports the use of the type of purposeful but experimental practice (such as I propose) as a means of exploring a problem space, and it confirms that any action or behaviour - when conducted with the appropriate mindset - is a form of experiment. This experimental approach seems well framed by the examination of the field of performative research provided by Haseman (2007, 147-157), in which performance is subject to the reflective practice of 'double-loop learning' (Haseman 2007, 152-153). This entails a focus on not only 'doing things right' but also 'doing the right things' (Martin 2009, 18-21). It is intended that my experimental combination of improvisation and design thinking (in developing a grounded 'action platform' concept from the relevant theory) will generate a number of useful insights into this form of design practice.

For instance, my conceptualisation of emergent customer services implies the need to experiment and problem solve 'in the moment'. Forms of practice-led research such as the method of 'investigative rehearsal' (explained in Chapter 4) seem very relevant, both as a means of exploring the improvisational method and as a method that can also form part of any platform that supports 'improvisational design'. This is particularly relevant to the domain of customer service, as this is actually an (at least partially) improvised stream of behaviours that is intended to solve emergent problems. Purposefully connecting this stream to the prototyping ethic of design seems likely to increase both the originality and usefulness of the behaviours that are generated.

Beck and Stolterman (2016, 202) argue that the discipline of design research is actually multi-disciplinary, and that whilst working under the "common theme" of design, its researchers may legitimately employ "different disciplinary perspectives". My research

combines perspectives from design, improvisation and commerce, in order to fully substantiate the argument for the improvised design of customer service behaviours. Beck and Stolterman further argue for the legitimacy of "design judgment" founded in the "intuitive logic" (ibid, 211) driven by a particular situation, and how this is particularly true when design research - such as mine - is not only aiming to "contribute to the discipline" through academic theory, but also to "contribute to the profession" (ibid, 212) through suggestions for knowledge application.

Consequently, as the first part of my exploration of how a practical 'action platform' might be extrapolated from theory, I develop a series of grounded prototypes. These are a set of specifically designed scenario cards that incorporate a range of ambiguous and provocative images and text, which invite autonomous interpretation and creative actions that are relevant to service scenarios These elements of the 'action platform' are intended to form part of an *intrinsically motivating interface* (Krippendorff 2004a) and are depicted in Chapter 9. The illustration of the full platform concept is then presented in Chapter 10.

5.3 Methods

I have reviewed and analysed the literature that frames the emergence of design thinking and design *for* service. A working definition and theoretical context for contemporary design has been developed. The definition and scope of management-oriented design thinking has been established – along with its origin, and association with 'wicked problems'. The important role of creative collaboration in design thinking process models has also been determined through a critical review of the literature that grounds the field.

I have also reviewed and analysed the literature that frames improvisation theory and process models. A working definition and the theoretical context of improvisation has been established. The concept of improvisation has been investigated as an exemplar of creative collaboration, and its practice – both as a performance art and as an applied method – has been examined via reference to the relevant literature. This examination has revealed the underlying processes of improvisation, and how they may be transferred to other forms of practice – including design.

I now explain the sequence of specific methods that I employ. The inter-relationship of these methods and their locations within the thesis chapters are then set out in Figure 5.1.

1. An intrinsic case study of IDEO'S proprietary approaches to design thinking and human-centred design is conducted in order to reveal several process models. The specific materials presented for analysis are:

   CEO of IDEO, Tim Brown's: *Change by Design* (2009)

   The Stanford University online module: *Empathize and Prototype: A Hands on Dive into the Key Tools of Design Thinking* (Accessed 2015)

   IDEO's *Human-Centered Design Toolkit: A free innovation guide and toolkit for social enterprise and NGOs worldwide*. (2011)

   These texts represent some of the most influential publications with respect to the management discourse of design thinking (as explained in Chapter 2). The technical content and language of these publications are examined to identify their specific guidance on processes, and an inductive content analysis is performed to identify the major dimensions of this approach to design thinking. Definitions are produced for each of these dimensions, and these definitions are assembled in a categorisation matrix that supports subsequent data coding (Mayring 2004). This categorisation matrix provides an empirical basis for the subsequent comparison of the primary features of improvisation to those of design thinking.

2. A collective case study is compiled, which examines a number of existing improvisational techniques that are found in current practice. These techniques are contextualised through a semi-structured interview (Denzin and Lincoln 2005, 705) with a leading improvisation practitioner. This semi-structured interview has been designed to support a thorough investigation of the practice of improvisation, whilst not unduly constraining or leading the participant (Gioia, Corley, and Hamilton 2013).

3. The 'investigative rehearsal' methods discussed by Howe (2009), Lock (2013) and Lawrence and Hormess (2015) are used to generate observable evidence of the mental processes at work during improvisation. Several short improvisational performances are video recorded as observable examples of practice. The participating practitioners then immediately review these recordings, and articulate their reflections using the 'think aloud' method (Ericsson and Simon 1993) to reveal the hidden mental processes at work during the performance.

4. The data from the interview and the video reviews provides "both retrospective and real-time accounts by those people experiencing the phenomena of theoretical interest" (Gioia, Corley, and Hamilton 2013, 19). This data is analysed using Goffman's (1971) dramaturgical lens to reveal any effect of impression management.

5. A directed content analysis (Hsieh and Shannon 2005) of the data produced in the interviews and observations is performed, in order to support a reliable and valid comparison of improvisation and design thinking. The data are compared for matches to the definitions in the categorisation matrix (that was developed in step 1), and coded accordingly. The clear pattern that emerges from the coding process confirms a number of important similarities between improvisation and design thinking. Any significant groups of data that do not match the definitions, are assessed to determine whether they constitute a primary feature of improvisation that contrasts to those of design thinking.

6. An intrinsic case study of the significant problem that designing for customer service presents to managers and business planners, and how design *for* services might usefully address this problem, is compiled. As it provides a context for a more *designerly* 'action platform' concept, the specific case of the 'anticipatory service' model developed by The Ritz-Carlton Hotel Company is examined to reveal its various characteristics (particularly those that reduce or increase variety – as per the intended effects that Manzini described).

7. An instrumental case study of the findings identified in the literature review and preceding case studies is conducted, in it I synthesise a framework for a speculative 'action platform' for supporting customer service innovation (Eisenhardt and Graebner 2007). As the first part of the demonstration, I argue for a means of accelerating problem recognition through the use of bespoke 'micro personas'. These 'micro personas' have been constructed from a range of carefully designed images and text that personify archetypal service scenarios (Cooper 2004, 124-125). The context that grounds this demonstration is the suite of customer needs identified in an earlier ethnographic field study (commissioned by a well-known hospitality brand). Using the method of psychological cues (Simon 1992b, Semetsky 2010), these artefacts will serve as the 'offer' that stimulates purposeful improvisation.

8. The second part of the demonstration is the presentation of an illustrative concept for a customer service 'action platform' that encourages innovative improvised behaviours. This potential 'action platform' contains the features that I identified (in steps 1 to 5) as being present in both design thinking and improvisation, as well as resembling those aspects of the Ritz Carlton 'anticipatory service' model that relate to increasing behavioural variety. In addition, I present evidence that this method of applied improvisation might be developed to constitute a novel means of supporting an improvised design competence.

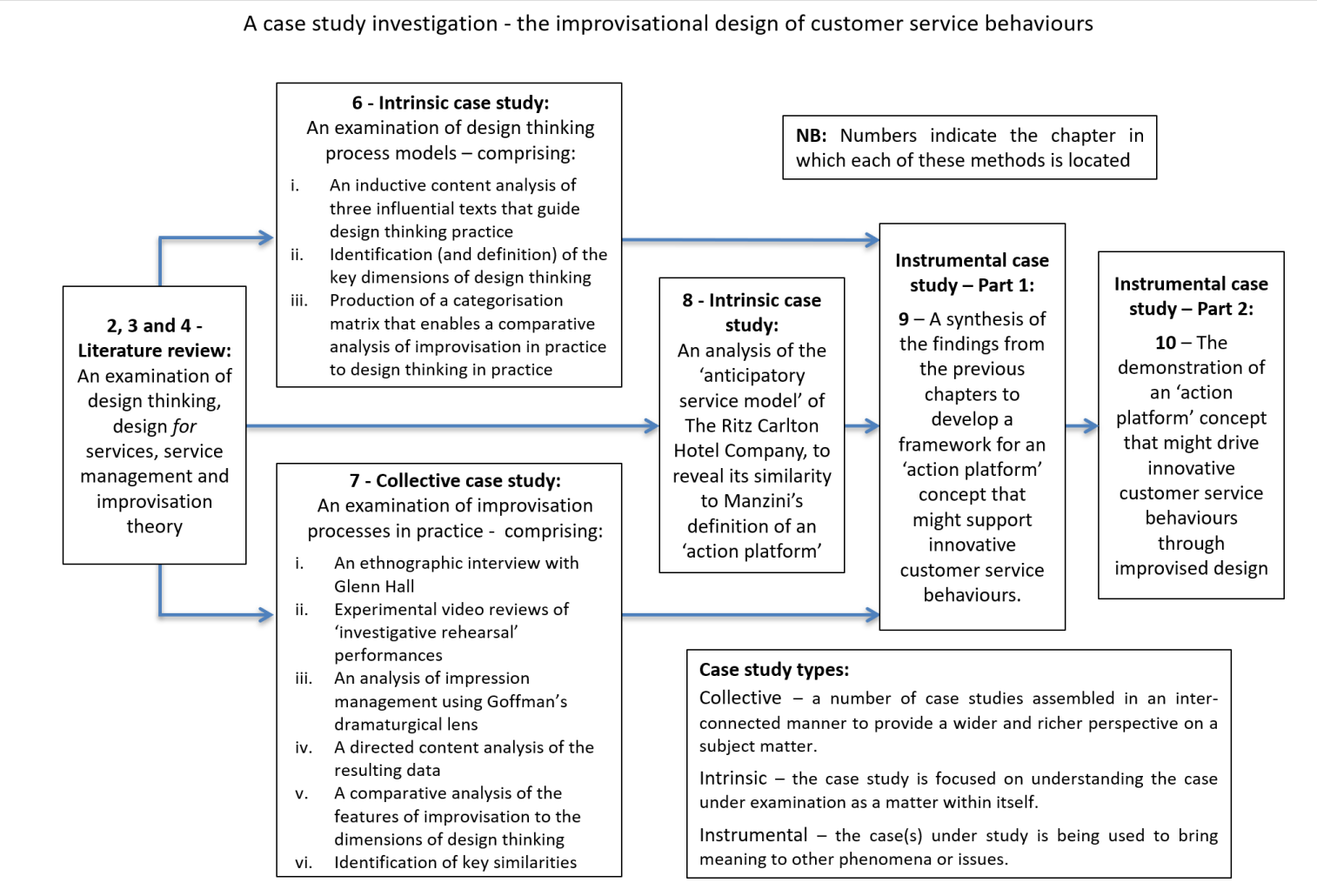


Figure 5.1 The sequence and interrelationship of research methods

5.4 Ethical considerations

Low risk ethics approval was granted for this research protocol (project 5241) on 25th November 2014, and all other compliance requirements for conducting research at Curtin University have been met. In the following section, I shall briefly state some of the broader ethical considerations of this work.

In engaging with the improvisation troupe (Just Improvise) the members will have become aware of my field of interest. Care has thus been taken to minimise any unintended influence during the collection of data on improvisational practice (Clandinin 2007, 156-161); and in maintaining an objective position in the representation of the subsequent analysis (hence the interview transcripts and an example of my coding being appended for review by readers).

My intention has been to ensure that any collaborating partners have not been used simply as means to an end (Benn 2004, 95). The troupe has been provided with the relevant interview transcripts, and their contribution has been acknowledged. An associated point for consideration are the ethics of deliberately seeking to hold service workers – or indeed, anybody – at the point of reflexivity, through their participation in the 'action platform' method that I propose.. In addition, the privileging of any 'special' reflexivity claimed by designers, or those who may seek to act in that role, must be kept in mind, given the power dynamics that prevail within the workplace..

Meeting these particular ethical considerations requires clarity of meaning with regards to a number of specific cognitive states. The application of the following definitions, as recognised in current psychotherapy practice (Corsini and Wedding 2011), will provide sufficient clarity for the purposes of this project. These three terms, along with the concept of reflexivity, recur throughout the thesis, hence the usefulness of clarity at this stage.

Consciousness is understood as those states of mind "resulting from perception of outer stimuli and inner mental functioning" of which there is full awareness (ibid, 24).

Unconsciousness is understood as those states of mind "comprising the primitive, instinctual wishes" that are outside awareness (ibid).

Subconsciousness or preconsciousness will be those "mental contents accessible to awareness once attention is directed towards them". These states of mind are understood as existing somewhere along the spectrum between the consciousness and unconsciousness (ibid).

In line with Gidden's definition (1991, 53-55), reflexivity is understood as the system of the mind that, in a search for self-awareness and an authentic personal narrative, bonds our initial thoughts with any subsequent reflection and evaluation of those thoughts. As a simultaneous input and output of shifting identity, this is not a closed system and – although obviously organic in nature (Krause 2012, 23-26) – it will be represented in the simpler, cybernetic form, of a double-feedback loop. This state of reflexivity is located at the junction of conscious and unconscious competence, and I take it to be the capability to think *and* to think about that thinking - simultaneously.

The intention of moving people to this mental state is to encourage a reflexive regard for how experience of the self relates to the challenges, and opportunities, of the situated customer service encounter – particularly with regard to one's unconscious competence in navigating human relationships. I contend that balanced tripartite benefits (for the firm, customer and worker) might be appropriated through the approach that I propose, and that it may specifically support the worker in sustaining their personal authenticity - whilst delivering distinctively desirable customer service.

Nevertheless, the equitable emergence of these benefits is largely reliant on a culture of power neutrality during the creation and execution of these desirable service behaviours. I make arguments for the introduction of enabling platforms that may be designed by the firm, ideally in collaboration with employees, in order to encourage the worker to then design their own solutions to recurring service scenarios. Not only does the firm usually secure the commercial benefits of delightful, behavioural service but it often also holds the balance of formal power in the employment relationship. Consequently, there is a material risk that this well-intentioned design intervention simply becomes a new means of organisational control. My goal is to create the conditions 'for' service innovation rather than to specify 'how'. I wish to build on Manzini's 'action platform' concept to deliver tools that enable an employee to construct an effective problem schema, which he or she can then freely populate from his or her own store of experiences.

As an ideal, the "pure relationship" that Giddens (1991, 244) identified as being free of traditional obligations and dependencies will prevail during the fleeting service interactions that are being examined in this thesis. This equity in social power supports the creative tension that is a hallmark of the effective collaboration, which is necessary for improvisation and design thinking. I remain mindful of this goal, as it is vital that the findings of this research do not - unintentionally - serve to reproduce the contemporary organisational problems that I reveal.

Chapter 6 An Analysis of Design Thinking Process Models

6.1 Introduction

In this chapter I conduct a case study examination of contemporary design thinking process models. These models are drawn from the IDEO and Stanford school of management-oriented design thinking practice, which I explored in Chapter 2. In order to identify the primary processes and methods of each model, I complete an inductive content analysis of these influential resources for novice design thinking practitioners. As these are advocacy texts I take care to read them critically (rather than as a consumer), and remain mindful of the promotional rhetoric that they may contain. This analysis reveals that these process models share a number of fundamental similarities, which I synthesis to produce a categorisation matrix - that is located at the end of the chapter. The three resources are:

Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation (Brown 2009)

Empathize and Prototype: A Hands On Dive into the Key Tools of Design Thinking (an online module from the Stanford Innovation and Entrepreneurship Certificate)

IDEO's *Human-Centered Design Toolkit* (a free innovation guide that is available as a PDF download or in hard copy format)

As I explained in Chapter 2, design is not clearly defined and nor is design thinking. We have already seen that design thinking is flexible and creative, and its processes are neither completely fixed nor linear. Nevertheless, despite the variety in contemporary design thinking process models, there are some shared features that can be clearly identified. The UK Design Council illustrates its own conceptualisation of these 'commonalities' (that are observable in the design process across disciplines) in its *Double Diamond* model.

As shown in Figure 6.1, this model represents two sequential cycles of divergent and convergent thinking, with the four resulting phases being defined as: Discover, Define, Develop and Deliver. These generic phases were identified through an analysis of "a collection of design process models that had been published over the previous forty years" (Design Counci 2007, 15). In exemplifying a *designerly* process model that is widely accepted, the *Double Diamond* model provides us with a useful reference point for the three design thinking process models that I shall explore.

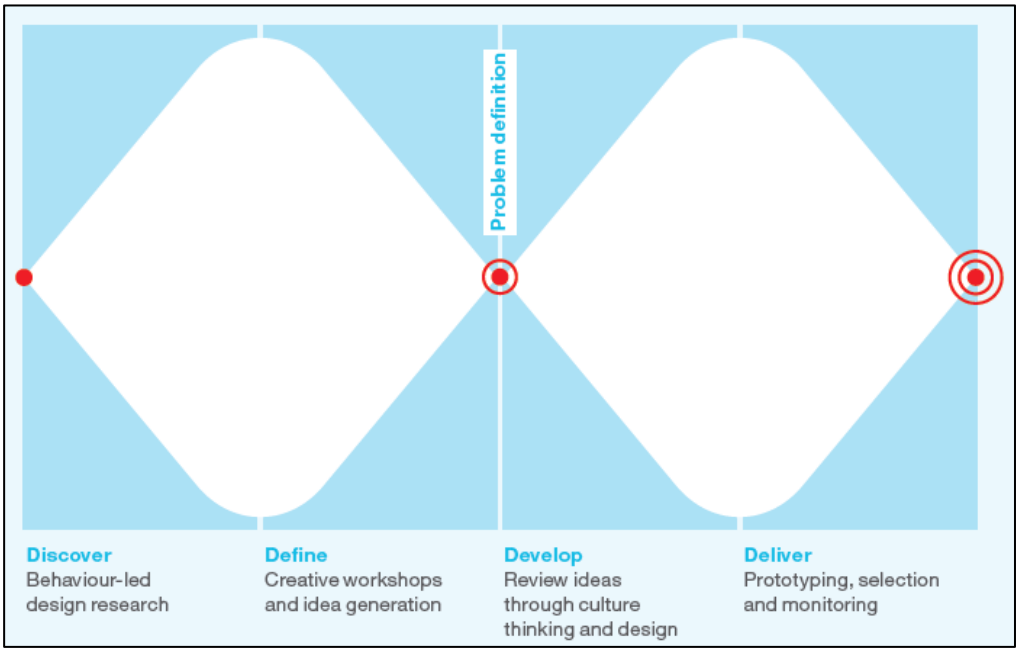


Figure 6.1 The Design Council Double Diamond (source: Design Council)

With regard to design thinking process models specifically, Kimbell (2011b) and Johansson-Sköldberg, Woodilla and Çetinkaya (2013) identified a management-oriented school of design thinking that presents the approach as a resource for solving complex problems – such as industrial innovation. Kimbell (2011b) argued that the most prominent of these conceptualisations of design thinking were those of Brown (2008, 2009) and Martin (2009). However, she also expressed concern about the apparent lack of reflexivity that is displayed in the IDEO approach (Brown is the CEO of IDEO) and stated that even Martin's conception of design thinking relied on a largely contingent switching between abductive, inductive and deductive reasoning. She concluded that design thinking remained "undertheorized and understudied" (ibid, 301).

Johansson-Sköldberg, Woodilla and Çetinkaya (2013) expressed similar concerns about design thinking's theoretical grounding. They emphasised the lack of connection between the way design thinking is conceptualised in the design and management literature. Their critical review was consequently based around the two "distinct discourses" (ibid, 122) of designerly thinking and design thinking. They identified IDEO's ways of working (Kelley 2001, 2005, Brown 2008, 2009) and Martin's approach to indeterminate organisational problems (Dunne and Martin 2006, Martin 2009) as distinct forms within the design thinking discourse. Although the IDEO approach is most influential in practice, Johansson-Sköldberg et al. (2013) explain that Brown's claims are grounded in a number of "success cases" (ibid, 130) that are written for managers rather than any "theoretical framework" (ibid, 128).

Both of these approaches to design thinking are strongly associated with influential universities. This link serves to provide an academic association that enhances the management community's perceptions of their theoretical robustness. Martin is strongly associated the Rotman School of Management at the University of Toronto. His model represents design thinking as a means of reliably moving from an intuitive hypothesis to a stable algorithm. In being able to initiate innovation through accommodating intuitive thinking and testing ideas through design thinking, a firm can ensure a pipeline of original and useful product concepts. Analytical thinking can then be applied to these concepts in order to convert many of them stable algorithms for value creation. Martin frames this as a 'knowledge funnel' that guides intuitive "exploration" followed by analytical "exploitation" (2009, 20), and he defines design thinking as a self-perpetuating cycle that:

> *... powers the design of business, the directed movement of a business through the knowledge funnel from mystery to algorithm and then the utilization of the resulting efficiencies to tackle the next mystery and the next and the next.*
>
> (Ibid 2009, 26)

Although Martin's approach is presented as a potential industrial process, it also represents a particular epistemology in which codified knowledge is eventually constructed after phases of generating 'valid' ideas (through abductive and divergent thinking) and testing them to select those that can also be made 'reliable' (through deductive and convergent thinking). Martin acknowledges the influence of the pragmatist philosophy of Dewey and Peirce on his conception of design thinking but emphasises the competitive advantage that this epistemology may offer businesses that require strategic innovation (ibid, 64-65, Lafley and Martin 2013, 87). In this regard, he recognises Brown as a fellow advocate for the application of design thinking to industrial innovation. However, through his frequent references to Brown and IDEO (Martin 2009 62, 65, 87, 117, 125, 141-143, 159), he positions his own argument as the general framework within which designers (such as Brown) practice. For instance, Brown and Martin (2015) more recently co-authored an article that espouses the design thinking approach but reports on successful IDEO projects.

Nonetheless, what remains unclear is the role of the professional designer in this approach to design thinking, and on what basis design thinkers make claims to design capability. What exactly do professional design thinkers *do*? These considerations and IDEO's claims to its collaborative *inclusion* of stakeholders and the *exclusivity* of qualified design

practitioners, require further investigation. In the next section I explain how this is achieved in this chapter.

The Hasso Plattner Institute of Design was established at Stanford University in 2004 and is seen as the origin of the design thinking movement. David Kelley holds a professorship at the Stanford *d.school* (as the Institute of Design is colloquially known) as well being the founder of IDEO. Brown is the CEO of IDEO and one of the most high profile advocates of the design thinking approach. He defined design thinking as:

> *... a discipline that uses the designer's sensibility and methods to match people's needs with what is technologically feasible and what a viable business strategy can convert into customer value and market opportunity.*
>
> (Brown 2008, 86)

Brown argues that many organisations can benefit from IDEO's particular form of design thinking and that: "[d]esign is now too important to be left to designers" (Brown 2009, 37). In his publications and interviews, he outlines the key steps of the IDEO approach in reasonable detail and he makes no suggestion that it is a trade secret – but the approach is presented as the definite IDEO *way*.

Consequently, the three resources for examination in the case study have been selected on the basis of their production by either Stanford University or IDEO, which are the academic and professional institutions that have the most influential association with the current management-oriented design thinking discourse. The methods and attitudes that are advocated in these resources all call for observation and engagement of users, as well as incorporation of user creativity and ongoing critique of design prototypes. This orientation is representative of contemporary design thinking practice.

I outline the content of each of these resources (in degrees of detail that are appropriate for each format) and examine that content in order to identify the key features. I then summarise these features to enable a clear comparison of the three approaches. Finally, I perform an analysis of the various 'mindsets and methods' that I expose, in order to identify the primary characteristics that they share. Although these resources present particular approaches to management-oriented design thinking, they contain sufficient transferable content to inform the final objective of this project (to describe how these features might be incorporated in a customer service 'action platform' that supports innovative behaviours).

The audiences and formats of the three texts appear distinct. The first (Brown's *Change by Design)* is a core management-oriented text. The second (Stanford's *Empathize and Prototype*) is an online module that is marketed by a prestigious academic institution (and made available for a fee after an evaluation of the applicant for study). The third (IDEO's *HCD Toolkit*) is an electronic, or hard copy, manual that has been philanthropically commissioned as a free and openly available resource for novice design thinking practitioners in developing countries. To enable a meaningful analysis of the texts that remains manageable for the reader, the key points are presented and then grouped into themes for comparison (Eisenhardt 1989). Where clusters of relevant quotations occur in quick succession in each text, they are summarised for the reader. I acknowledge that the selection of the material introduces an inevitable element of subjectivity (Crouch and Pearce 2012, 57-59), although it is important to recognise here that my focus is a critical analysis of the texts.

The various excerpts have been selected as a reliably representative sample of contemporary design thinking and provide an understanding of each section of the respective three texts. The content of each text will be examined in turn, with a subsequent summary section that analyses that text's most important characteristics. Where appropriate, I dwell on those parts of the material that are particularly relevant to concerns around co-design, improvisation, customer service and autonomous behaviour. Given the restricted access to the Stanford University module (that is behind an online pay wall), its exploration will contain an amount of *reportage*. In contrast, rather than duplicate material well covered in Chapters 1 and 2, I analyse only those other key aspects of *Change By Design* (Brown 2009) that require critical review.

6.2 Change by Design

In this 2009 text, Tim Brown (the CEO of one of the world's most prominent industrial innovation companies – IDEO) argues that the practice of design thinking presents a great opportunity to improve consumer and public services. He identifies figures such as Thomas Edison and Isambard Kingdom Brunel as the forefathers of the approach. Although product design has been the traditional focal point of systematic innovation, a narrow focus on technology proves insufficient as products and service blend into a single consumer experience (Brown 2009, 178-181). The vision to combine newly created knowledge and insights to form a resilient, and viable, eco-system is highlighted as a hallmark of the design thinker.

These design thinkers claim to be able to use the approach to tackle highly complex and often ill-defined 'wicked problems' (Churchman 1967), with highly innovative solutions. Examples of such problems include some of the major challenges of mankind, with particular emphasis on pernicious social issues such as: an aging population, the economic burden of healthcare provision and more effective models for education. Brown emphasises the importance of human-centred design and the need to co-create with end-users (Brown 2009, pp.39-40, 47, 200). This is in stark contrast to the popular view of design being relevant only to the end 'wrapping' of product development, or the agents of modern capitalism designing for society without consultation.

A prime attraction of the design thinking approach is its claim to be able to reveal desirability. This enables organisations to envision what will create value for users, rather than becoming preoccupied with increasing the efficiency of their existing processes. The prime enabler of this ability to gauge desirability is the reliance on co-designing with end users. These arguments locate design thinking as a creative practice, which relies on stakeholders (often end-users) as co-participants in its approach. However, it is also apparent throughout Brown's book that there are not only motives of the social good but also those of commercial advantage. Although he frames it as 'putting people first', Brown is open about the benefits that design thinking offers business. Paralleling Martin's argument for design thinking being about inventive "exploration" followed by economic "exploitation" (Martin 2009, 20), Brown explains that:

> *The job of the designer, to borrow a marvellous phrase from Peter Drucker, is "converting need into demand".*
>
> (Brown 2009, 40)

It is important to emphasise that in his advocacy for design thinking, Brown is referring to the specific process that is followed at IDEO. This process has the goal of harmonising the three constraining dimensions of: desirability (what is valuable to the user), feasibility (what is possible for the provider) and viability (what is commercially sustainable for the proprietor).

Although seeking eventual harmonisation, the approach commences with a search for desirability, it being the primary driver of user value. There are three main phases of this research and delivery process:

1. *Inspiration:* This involves looking outside and inside the client organisation for provocative ideas, models and analogies. This may include the observation and interviewing of potential users to understand and empathise with their ambient behaviours (in order to design then in light of any prevailing pattern in their habits). This phase also informs, and may result in the reforming of, the original design challenge as a richer view of the underlying factors emerges – and are shared with the client. Relevant stakeholders of the firm may already have been recruited to this research phase, as part of the co-design process. This is intended not only to capture ideas from those close to the perceived problem but also to begin the process of leading the client to potential insight and receptiveness to innovative solutions (ibid, 63)

2. *Ideation:* This is the synthesis of the main themes that emerged from the *Inspiration* phase, and the creative generation of an initial cluster of 'sacrificial concepts' (IDEO 2011, 42). At this stage, the design team is not wedded to any specific concept and are open to iterative rounds of initial prototyping in search of desirable solutions. During this phase the flexibility of prototyping supports the investigation of solutions before they become too expensive to change. If the judgement of the design team is that there is little prospect of an innovative solution emerging, a return to the *Inspiration* phase may be agreed. Early consideration of feasibility would also take place in this phase through co-creation with stakeholders.

3. *Implementation:* In this phase the production of high-resolution prototypes takes place; involving more users and consumers in the testing process. Importantly, the evaluation of desirability and feasibility would be based on the observed behaviour of participants rather than via their verbal endorsement. Evidence from these observations, along with feedback from users and consumers, are included in the design process and next iteration of prototypes – until a final test product can be produced. Assessment of viability would be conducted in this final phase, discounting the early costs associated with research and prototyping as a hedge against the risk of full investment in an untested product or service. Equally, as part of this viability assessment, it may be deemed that the process has not produced sufficiently radical results (in terms of innovation and value creation) and the team might return to a search for *inspiration*.

Although these three stages are conceptually distinct, they may often overlap in practice. As explained above, the design team are free to return to an earlier stage of the approach. It is the job of the skilled design thinker to exercise judgement within the loosely bounded

ambiguity and to advise on the appropriate techniques for each situation. These three major phases represent a cycle of divergent thinking (in the generation of unbounded, creative concepts) and convergent thinking (in the testing and selection of solutions). However, within each stage the process relies on the application of both divergent and convergent thinking to each of the subordinate problems. Brown explains the purpose of divergent phases as being that of 'generating choices', and the purpose of convergent phase as being that of 'making choices' (ibid, 67).

Brown acknowledges the value of skilled designers but implies that traditional (product focussed) design is now a subset of the "expanded field" of design thinking (ibid, 6). He explains that the term design *thinking* is deliberately intended to differentiate from design *doing*. He provides his rationale for making this distinction and offers the concept of "design with a small d" (ibid, 6) as a differentiated form of design that is applicable to more complex problems than those that are in the scope of traditional design disciplines. He also argues that these *design thinkers* might capably originate innovative design concepts rather than simply refining an existing idea. He makes these claims on a rhetorical basis rather than his argument being supported by objective evidence. However, he does elaborate on two of the key practices that anchor his design thinking process model. The first is methods for building empathy for end-users, and the second is engaging with these users through iterative prototyping.

A defining aspect of the design thinking movement is its claim to be distinctly human centred. This is not only true in its incorporation of users in the generation of ideas but also of its use of ethnographic techniques to build empathy (ibid, 26). Ethnography has a great scholarly basis and an ethical framework based on the suspension of preconception (Monaghan and Just 2000, 31-33), and design thinking claims to employ a derivative form that relies on the synthesis of subjectivities (Fulton Suri and Gibbs Howard 2006). It seems that the resource challenges of many design projects prompt reliance on a finer slice of ethnography (Brown 2009, 46) and an acceptance of the need to work with high levels of ambiguity and personal judgement when seeking to understand a user's personal and cultural situation.

Notably, Brown (ibid, pp.88-97) takes considerable time in his explanation of the design thinking mindset to establish the important role of prototyping, and the environmental and attitudinal factors required support it. He provides several examples of the role of physical prototyping in his recounts of IDEOs successful projects (ibid, pp.87-108). The purposeful phases of divergent and convergent thinking, along with the use of empathy

building methods (such as ethnography) and concept testing methods (such as prototyping), all indicate that Brown's process model – albeit flexible – contains a number of *designerly* aspects.

6.3 Empathize and Prototype: A Hands On Dive into the Key Tools of Design Thinking

The Innovation and Entrepreneurship Certificate was launched by Stanford University during 2014 and remains available for flexible online completion. The *Empathize and Prototype* module forms one of a range of short courses: eight of which must be completed to earn an award of the certificate. This module is based around a series of video lectures, presented by Perry Klebahn and Jeremy Utley (both Stanford *d.school* faculty members). It also incorporates substantial contextual documentation and sets several assignments for its students. It is notable that the 'empathy' and 'prototyping' are presented as the key tools of the design thinking approach. Throughout the module, participants are reminded that design thinking is a process (albeit it an iterative one) and the sequence of steps (shown below) is presented repeatedly.

1. Empathize
2. Define
3. Ideate
4. Prototype
5. Test

A supporting concept is that of 'focus' and 'flare'. 'Focus' is located as the intersection of Define and Ideate, and 'flare' is the subsequent intersection of 'Ideate' and 'Prototype'. This model represents the suspension of solution-based thinking until a significant underlying problem (that is often more fundamental than the initial design brief) is defined. Only after a phase of divergent thinking has fully revealed the problem is there convergence on its actual definition. Subsequent phases of divergent and convergent thinking are then intended to deliver an original and innovative solution – the 'flare'.

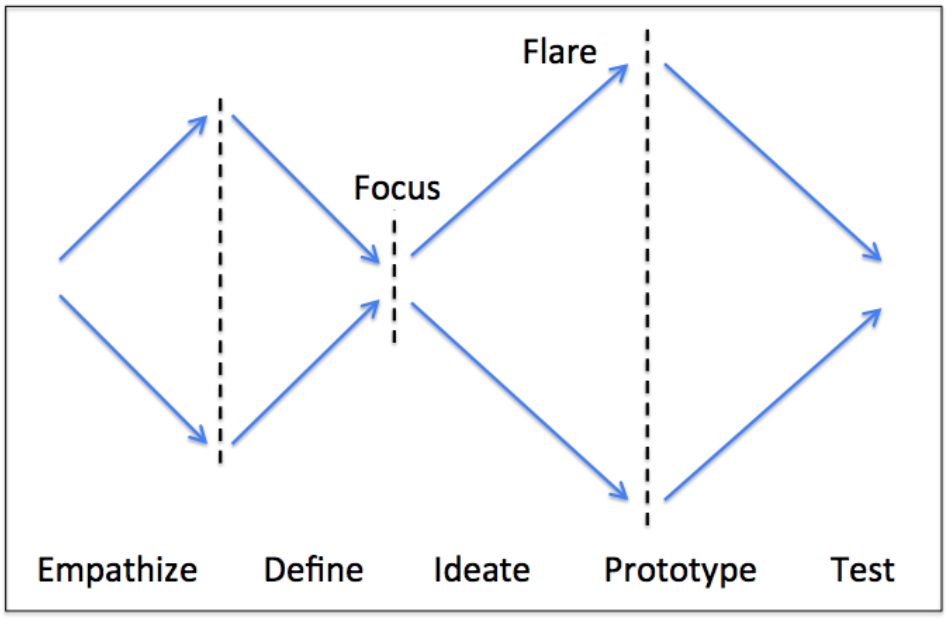


Figure 6.2 Focus and Flare

The phases of divergent and convergent thinking have an obvious resemblance to the *Double Diamond* model publicised by the Design Council (see Figure 6.1). This similarity reveals the underlying basis of a model that is being presented by the Stanford *d.school* as its original approach to design. To support an examination of this framing process model, I will now provide a summary of the mindset and methods involved in each of its five key steps. Given that the material is not openly available, I provide more detail for the reader here than for the other two publicly available texts.

6.3.1 Empathise

In this section the student is presented with various techniques for developing a deep and empathic understanding of user needs (and a number of these are played out 'live' in the field). The presenters team up with two employees of the hotel in which the research is being completed to interview four different types of user. At commencement, (drawing from science fiction writer, William Gibson) the claim is made that: "The future is here, it is just unevenly distributed". This implies that the human behaviours and ingenious workarounds that will ultimately inform innovative design already exist in niche locations, and are simply awaiting a sufficiently curious and imaginative observer to grasp their significance – and to systematically scale their use.

The presenters explain the importance of gathering tangible evidence through observation at this stage, rather than being drawn into premature interpretation of what these things might mean. They emphasise the important of asking very specific questions about user

behaviour. For instance, “how many times to day?” or “how much today?” would be preferable to “how often?” and “usually?” This specificity is intended to reveal the unique need states of the user, rather than these important signposts being obscured by generalising across customer groups.

Extreme users and experts may be more mindful of (and so better able to articulate) their experiences (both good and bad aspects) than the core user population. Students are advised to remain vigilant for “unexpected experts”, perhaps people on the fringe of a larger process. The example given in the module is that of the hotel doorman who helps the interviewers realise that the user experience actually begins and ends at the ‘kerbside’ (even though the formal checkout process begins and ends at reception). Students are encouraged to seek those stories that reflect an expert’s view of the local circumstances of each design situation. These experts often possess the greatest understanding of the dynamics of these situations.

The presenters go on to remind the participants that the control of the interview agenda has a significant effect on the quality of the evidence that may be collected. They recommend a focus on open, neutral and non-confining questions - rather than limiting the user through closed or leading questions (that focus on a process driven agenda). They also point out that “an interview is never over”, meaning that often at the conclusion of the formal interview, an interviewee might spontaneously share “one more thing” that is the most emotionally charged or useful element. This may be because the interviewee senses that the agenda is now completely open. A user’s pauses and silence are highlighted as typical precursors to significant acts of expression, and so patience is required during the design interview process.

Finally, they explain that the interviewing and observation exercises are not about “crowd sourcing solutions”. It is the designer’s job to engage with users to understand their *needs* – only then should they start to define an underlying problem. Consequently, problems should be framed in a ‘human-centred way’ in order to find the ‘problem worth working on’ (rather than its superficial manifestation). The student must be prepared to disregard any of their initial paradigms of a design problem. They must be able to ‘let go’ of their ideas.

6.3.2 Define

In this section, the co-design team (that comprises the two Stanford presenters and the two hotel employees) review the material gathered in the *Empathise* stage with the intention of defining a significant problem for their attention. The first guidance from the tutors is to try and reframe nouns (that are often unknowingly used to represent needs) as verbs. For instance, instead of John needs a ladder: John needs to reach, or instead of Jane needs a book: Jane needs to know. The intention here is explained as suspending the intrusion of potential solutions (and in the examples of John and Jane, ladder and book are solutions that are presumed rather than known by the observing designer). Without this discipline, this stage of design becomes "relegated to form and function". This is why the focus is purposefully directed to the underlying need with the use of the infinitive verb (in place of a noun). The influence of language is apparent as the focus remains on the identification of user needs rather than solutions. Suitable framing of the problem supports enquiry that may then lead to a novel designed response.

Although assumptions about solutions are resisted at this stage, the process shifts from observation to interpretation. The User Empathy Map is introduced for this purpose, and it is generated from a detailed download and review of the user interviews (during which detailed notes and evidence such as photographs were collected). The User Empathy Map is split into quadrants that are aligned to form two columns: observation (*say* and *do*) and interpretation (*think* and *feel*). The words and actions that were observed are functions of each researcher's tangible evidence, with the thoughts and feelings being the co-design team's interpretation of that evidence.

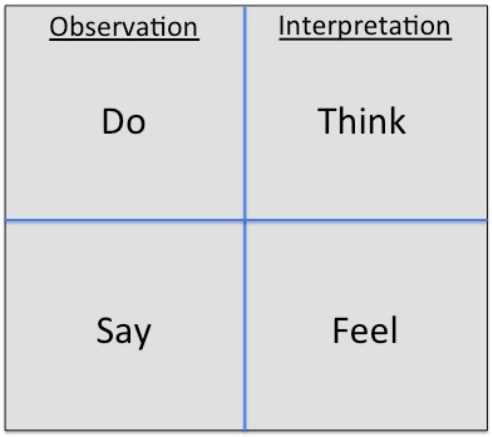


Figure 6.3 The User Empathy Map

The information on the Map is used as evidence for the populating of the following statement: User X needs Y because of Z, with item Z being the insight into an emotional motivation. For instance, Jane needs to know because she is confused. Prior to populating the statement, the design team pause for individual reflective thought.

In respect of the item Z (the insight) there is no expectation that it is polished or precise in its initial form. This is still a generative stage, and the needs of multiple users may be examined as parts of a single debrief session. The focus remains on keeping away from confining, solutions at this stage. It is the underlying emotional state that will be the foundation for the significant design problem. A range of emotional states that are specific to individual users but common to the underlying problem may inform this stage. The example given in the module relates to the check-in experience at a Hyatt hotel. The emotional states that are posited lead to the insight that before and after the hotel's formal check-in and check-out processes, people regard themselves as customers and continue to hold expectations about the hotel experience.

For instance, immediately upon arrival younger children begin to assess the physical environment in search of diversion and adventure; late arriving business travellers hold a mental agenda of specific utility goals that they wish to achieve after check-in; and departing business customers maintain a sense of remaining a hotel guest and dwell in the public areas well-beyond check-out. Hotel visitors retain the 'guest' mindset for as long as they are on the hotel property (which may be before or after their formal occupancy). This is distinct from the apparent core product of a hotel: satisfying the physical need for a bedroom. The expectations of individual customers are connected to this core product but also include discernible patterns of unexpressed need. The hotel's construct of a formal check-in process (that represents the formal 'sale' of its core product) is subordinate to a customer's emergent emotions and an intuitive state of mind that guides their expectations. This provides a fruitful space for design activity.

In seeking to expose the emotional dimension, which may often remain either conscious (but unarticulated) or unconscious in the minds of customers, this method of co-design is seeking to establish: "What problem is worth solving?" This is a clear and important example of problem-finding behaviour that is driving the *Empathize* and *Define* sections of the module and aligns with the first half of the *Focus and Flare* model (explained in section 6.3). The *Empathize* and *Define* phases lead to a point of the convergence that precedes the divergent *Ideate* phase.

6.3.3 Prototype

This section of the module is introduced with some initial reflection on the goals of prototyping which are stated by the presenters as follows:

1. Eliminate risk early in a project
2. Fail cheaply, learn early – the earlier the 'failure' the better
3. Turn 'failures' into learning through an attitude of experimenting and testing

An example is provided of the work of Paul MacCready, who mastered a long-standing challenge for an aircraft design that would enable self-powered flight. He proclaimed, "the problem is that we don't understand the problem"; meaning that although the explicit challenge was that of self-powered flight the fundamental problem was how to work through the inevitable iterations required to master the problem within finite time and resources. Previous challengers had all relied upon the traditional technique of constructing one-of-a-kind vehicles that were close derivatives of aircraft of the time. Consequently, when they met with failure, they faced the obstacle of the time it took to incorporate the learning they had made from the test flight into their system for solution.

This understanding is critical to the prototyping mindset, in that it reveals the nature of complex problems. They are beyond the best solutions of a solitary, deductive mind. Even for design challenges that appear straightforward, there is an inevitably lengthy learning curve and prototyping provides the means to climb that curve (to reach a truly effective solution) within the limits of finite resources. Prototyping is a process itself (rather than the output of a process) and it provides a 'vehicular language' that supports (often non-verbal) communication between the test user and the designer. It must be approached as such and this is confirmed by the presenters' explanation of the 'mindset' of prototyping.

This mindset positions prototyping as a way of working in which the attitude adopted in developing the prototype is more important than the artefact itself. Acting before being fully prepared is encouraged in order to support brisk iteration. There is a strong improvisational overtone as sharing incomplete work, working 'on the fly' and embracing the constraint of whatever materials happen to be available are all encouraged. This so-called prototyping 'mindset' is entirely at odds with the traditional management planning, which recommends the compilation of detailed plans ahead of any commitment to action.

This section provides further argument in support of the prototyping mindset though reference to the work of Tom Wujec[1], which serves to develop the argument that traditional management training and culture is ill equipped to deliver tactical innovation. He identifies: the habit of applying deductive powers to poorly understood problems, a belief in the existence of a 'single, right plan' that can be intellectually deduced, and underlying power dynamics as inhibitors to success in the challenge. Other than participants who have specific training in engineering and architecture, the most successful performers are kindergarten age children. Wujec states that it is their preparedness to simply start *doing* and the absence of any hierarchical etiquette that provides their advantage; they progress along the learning curve much more quickly – happily recovering from failures as they go. He terms this 'fast cycle time'.

Figure 6.4 illustrates the impact of this 'fast cycle time', representing the inverse relationship between project risk and prototype iterations. Wujec argues that in even apparently straightforward innovation projects there will inevitably be mistakes and failures, as a function of untested assumptions within the unfamiliar problem space. These sorts of problem are generally impervious to an *a priori* approach as there is usually insufficient information and too many options available, none of which can be tested without implementation. The cost of these unavoidable failures increases substantially as any project matures.

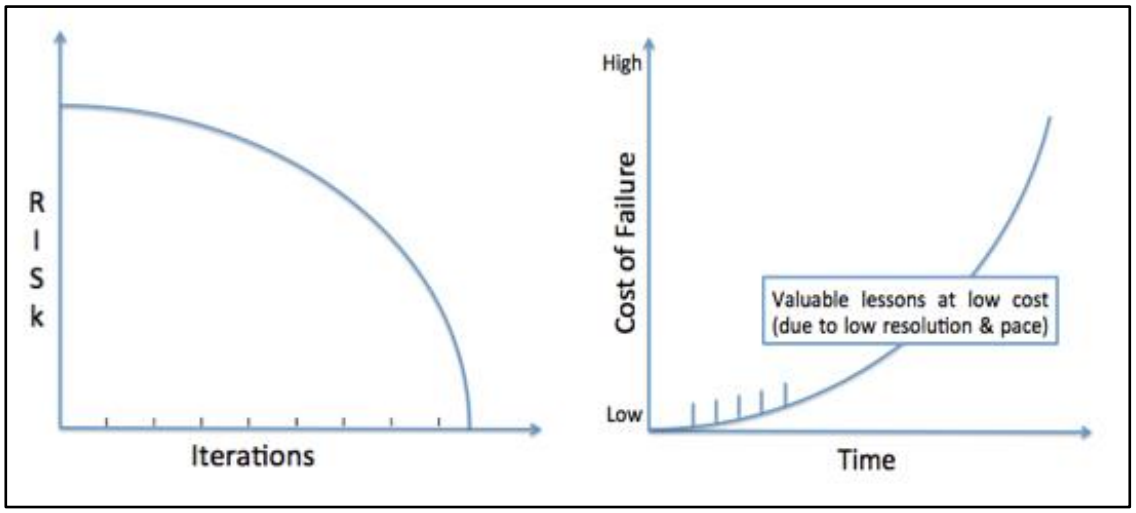


Figure 6.4 The impact of 'fast cycle' time

[1] www.marshmallowchallenge.com

The inclusion of the work of MacCready and Wujec seems intended to support the presenters' claim that prototyping is a problem solving process not a result (of that process). It is a means of thinking and communicating by *doing* and students are directed to overcome their preconceptions about finished, polished or conformist work. A prototype is not intended as a re-creation of that which already exists, it is an initial test of new ideas not their eventual viability. To that end, and to avoid the perils of groupthink, budding co-designers are advised to, "[a]void the echo chamber" by exposing their prototypes to users at an early stage. The interactive testing of a prototype appears to be a keystone of the Stanford design thinking approach.

6.3.4 Testing

In the final section of the module, a couple of illustrative user-testing sessions are conducted using a prototype for a futuristic briefcase. A colleague of the presenters is asked to participate in the demonstrations, with the first version of the session being an example of how *not* to conduct a successful session. A list of specific things to avoid is provided as a resource and the contents relate to: managing expectations of the user, confining the interactions of the user with the prototype and managing the ratio of talking to listening. Effectively, the user should be enabled to explore the prototype through unimpeded use; must feel no social pressure to voice approval; and should be given the minimum direction or context. It is the observation of the user's intuitive exploration of the prototype, along with their questions and suggestions, that are the desired data from the testing session.

In the second demonstration, the colleague is again presented with the prototype, and the presenters (playing the role of testers) display a different set of behaviours. In this session, the user is allowed to explore the prototype without any constraint and the testers carefully observe his impulsive actions. Importantly, the prototype is introduced to the user in a fashion that minimises its importance in order to mitigate any perceived social obligation for complimentary feedback. Enquiries by the user are met wherever possible with an open question that maintains the flow of unconstrained feedback and avoids bounding their mental model of the prototype with the assumptions of the designer. The presenters explicitly recommend encouraging users to share in detail specific stories of how the prototype might relate to their own routines.

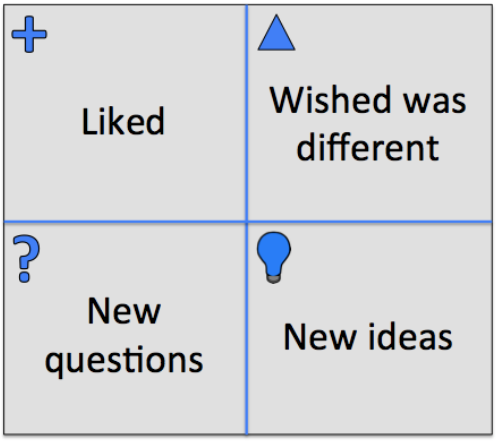


Figure 6.5 The User Feedback Grid

A consequence of this approach is large quantities of information, hence the introduction of the User Feedback Grid – which serves to categorise direct and indirect feedback. Individuals may have their own distinct relationship with the prototype, and so it must be shared with a number of users in order to generate sufficient amounts of feedback to reveal potentially meaningful themes and patterns. The layout of the User Feedback Grid supports visibility of emerging patterns of feedback, but it relies on detailed evidence being captured and made tangible during the user tests. Although it is not contained in this module, the same presenters explain in an accompanying Stanford webinar that people are "very poor with hypotheticals" and an immersive interaction with a prototype supports a more authentic response.

In the same webinar, a reminder is given that "design thinking is a process" albeit an iterative one. Guidance on how to effectively iterate prototypes is based on the designer's reflection on two streams of information, what was learned about the prototype and what was learned about the user. This blend of information should inform the subsequent iteration of the prototype, in order to isolate changes to distinct aspects on which the user can specifically comment.

It is clear that although design thinking is positioned as a process it is far from being fully systematic, as progress through the prototyping and testing phases rely on the judgement of the designer. The approach is rational (in that it is driven by emerging and tangible evidence) but there is no definitive search path, and the design choices remain largely subjective. At the start of the prototyping phase, the search space is very wide and subjective meaning must be attributed to potential solutions in order to move from the designer's 'hunch' to a 'heuristic' that can be tested with users. The accompanying webinar contains a slide that further confirms that this is the case. This slide presents a

diagram of the Design Thinking Mindset, in which 'curiosity' is located at the centre and is surrounded by the concepts of 'reframing', 'radical collaboration', 'mindfulness of process' and 'bias towards action'. All of these aspects were clearly present in the theories of improvisation analysed in Chapter 4, and are confirmed as characteristics of improvisational practice in Chapter 7.

6.3.5 Critical review of the *Empathize and Prototype* module

Given the quantity of material presented for this resource, it is now useful to review the key themes of the *Empathize and Prototype* module.

The presenters' repeatedly claim that the Stanford paradigm of design thinking must be understood as an *iterative* process. This reveals a tension between the constraints of the process, and the freedom for the designer to exercise reflexive judgement as they decide that a move can be made to the next stage (along with the prerogative to occasionally ignore the constraints of the process by moving back to an earlier stage). Where design criteria have been specified in advance they may validate this type of decision-making, but there is no clear way to test the congruence of the designer's decision when radical innovation is the goal. This potential paradox will be considered more fully at the end of this chapter, however, it will be useful to highlight a couple of particular aspects that are important to this process model.

Firstly, close and careful observation appears to be a precursor to any interpretation of a user's behaviour or feedback. This reflects an assumption of the existence of an underlying problem space that may reliably be accessed by using the process. The typically human response of solution finding must be deliberately delayed during the search for the underlying problem that presents the biggest design opportunity. This must be derived from the emotions or recurring story elements expressed by the users. This frames the problem-finding behaviour that is characteristic of the initial phase of design thinking, and design more generally. Secondly, the ideal power neutrality of any interviewing or observing party must still be reconciled with the need to encourage the user to articulate their experience comprehensibly, as well as the subsequent selection of which elements of a recollection are worthy of further investigation. The management of these human power dynamics are entrusted to the reflexive judgement of the designer and this seems to be framed more to 'mindsets' than process models and methods.

There is a reliance on the tangibility of evidence ("if you don't capture it, it did not happen") and physical interaction with the prototypes. The prototype serves as a form of vehicular language, through which the designer and user might communicate. Again, in the absence of the formal rules of language, the designer is left to rely on their personal judgement and intuition, particularly in gauging the effect of their influence on user testing and choices for the next iteration of the experiment. This process of iteration and *learning by doing* indicate a bias towards action but also suggest that a level of reflexivity is required in order to negotiate the ambiguity of user testing and the coherence that must often be constructed from fragmented feedback. Is the coherence inherent in the collected evidence or projected by the designer? Does it matter as long as there is coherence? To what degree is the user or the designer perspective dominant? We take such concerns forward into a closer look at the final text for examination – IDEO's *Human Centred Design (HCD) Toolkit*.

6.4 The Human-Centered Design Toolkit

This resource is intended to bring the human-centred design (HCD) principles that have been increasingly used in commercial environments to the not-for-profit sector. The International Development Enterprise (IDE) funded it as part of a grant from the Bill & Melinda Gates Foundation, and IDEO developed the toolkit in collaboration with a number of non-profit groups. It was designed to help international staff and volunteers to understand the needs of impoverished communities (in Africa, Asia, and Latin America) and to develop innovative but sustainable solutions to meet those needs.

The *HCD Toolkit* has been used by organisations throughout the developing world, including Acumen Fund, AyurVAID, Heifer International, ICRW, IDE, Micro Drip, and VisionSpring. A full PDF version of the HCD remains available for download. [2]

The HCD opens with a section that explains the reasons for employing human-centred design, explaining that the kit does not offer solutions - as the people (for whom solutions will eventually be designed) are the experts. Instead, techniques and tools are presented that allow the desires of these people to guide solutions. It also explains that the user will need to select the relevant elements of the kit, as they will best know how to use it given local conditions (IDEO 2011, 5). This introduction locates the HCD as a likely exemplar of co-design, on the basis of its collaborative mindset and origins within IDEO. It also

[2] http://www.ideo.com/work/human-centered-design-toolkit/

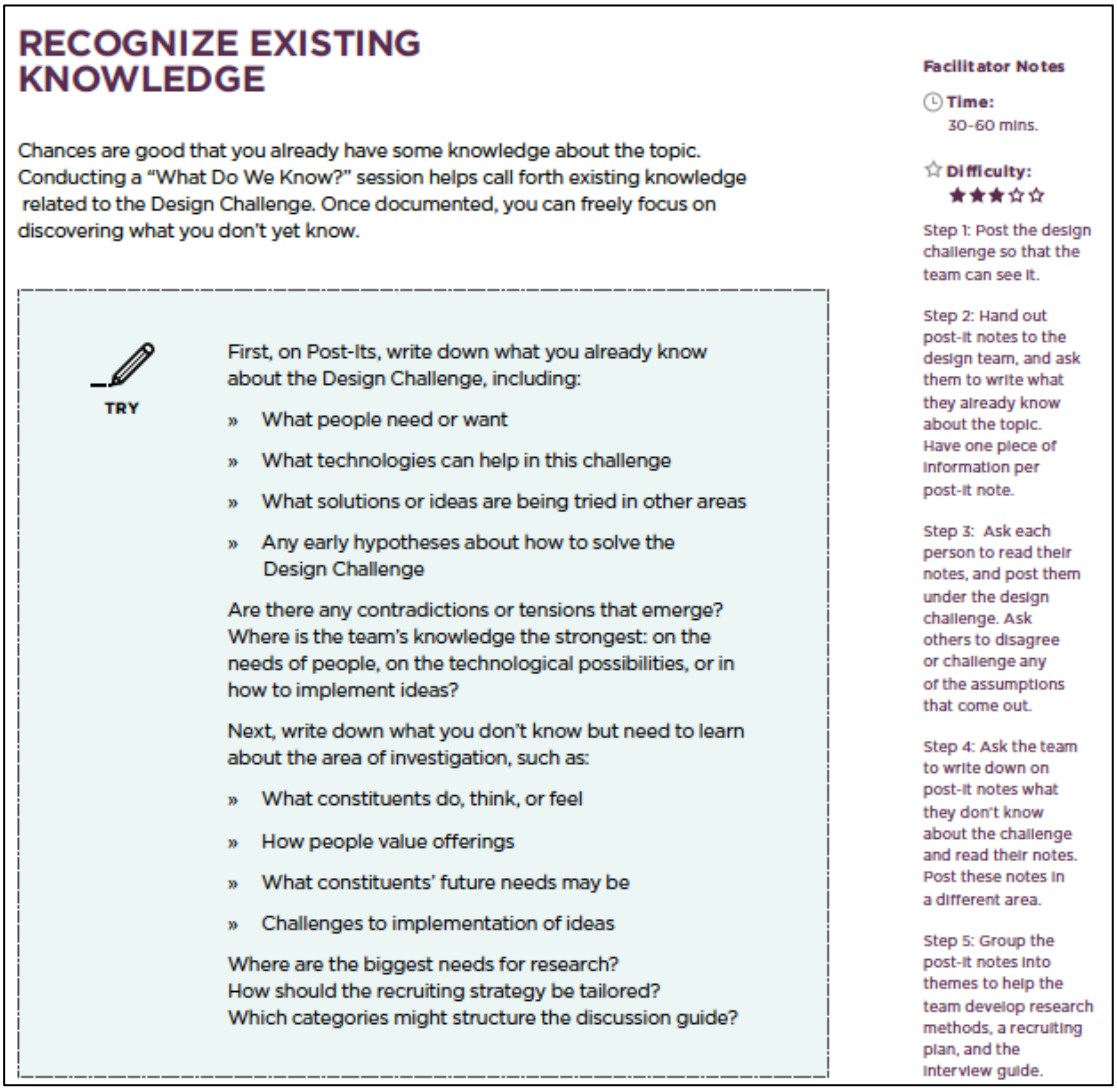
reintroduces the tension between process and judgement, which has recurred throughout the consideration of design thinking.

The harmonisation of: desirability, feasibility and viability, is presented as the framing philosophy of human-centred design (ibid, 6) and this matches the definition in *Change by Design* (Brown 2009, 19). However, unlike the process stages proposed in that work, the HCD identifies three different phases: Hear, Create and Deliver. The progression through these three phases also shifts between 'real world' observation, abstract thinking and the plan for actual implementation.

A number of complementary practices are also recommended. The first is multi-disciplinary teams, founded on a deliberate and diverse mix that combines to enable different approaches to stubborn problems. This recommendation also matches the recurring theme of the creative tension (rather than cooperative harmony) that must exist to spur genuine collaboration. Alongside many of the method steps in the HCD, there is a set of notes provided for a group facilitator (see Figure 6.6). These notes are introduced as "rough instructions of how to move your team forward through the innovation process" (IDEO 2011, 11). This reference to a distinct process, and guidance to use positional power wisely, aligns with earlier evidence informing the balance between process and judgement.

6.4.1 Hear

This section sets out to provide practitioners with the "methodologies and tips for engaging people in their own contexts in order to understand the issues at a deep level" (ibid, 29), along with a reminder that "designing meaningful and innovative solutions … begins with understanding their needs, hopes and aspirations for the future" (ibid, 29). There are detailed explanations of who to talk to, how to gain empathy and how to capture stories. There is also an overview of the strengths and weaknesses of qualitative research methods, as they are employed during the HCD process.



RECOGNIZE EXISTING KNOWLEDGE

Chances are good that you already have some knowledge about the topic. Conducting a "What Do We Know?" session helps call forth existing knowledge related to the Design Challenge. Once documented, you can freely focus on discovering what you don't yet know.

TRY

First, on Post-Its, write down what you already know about the Design Challenge, including:

- What people need or want
- What technologies can help in this challenge
- What solutions or ideas are being tried in other areas
- Any early hypotheses about how to solve the Design Challenge

Are there any contradictions or tensions that emerge? Where is the team's knowledge the strongest: on the needs of people, on the technological possibilities, or in how to implement ideas?

Next, write down what you don't know but need to learn about the area of investigation, such as:

- What constituents do, think, or feel
- How people value offerings
- What constituents' future needs may be
- Challenges to implementation of ideas

Where are the biggest needs for research?
How should the recruiting strategy be tailored?
Which categories might structure the discussion guide?

Facilitator Notes

Time: 30-60 mins.

Difficulty: ★★★☆☆

Step 1: Post the design challenge so that the team can see it.

Step 2: Hand out post-it notes to the design team, and ask them to write what they already know about the topic. Have one piece of information per post-it note.

Step 3: Ask each person to read their notes, and post them under the design challenge. Ask others to disagree or challenge any of the assumptions that come out.

Step 4: Ask the team to write down on post-it notes what they don't know about the challenge and read their notes. Post these notes in a different area.

Step 5: Group the post-it notes into themes to help the team develop research methods, a recruiting plan, and the interview guide.

Figure 6.6 A method step with facilitator notes from the *Hear* phase of the HCD

The introduction to the *Hear* phase contains the following quotation:

> *Qualitative research methods enable the design team to develop deep empathy for people they are designing for, to question assumptions, and to inspire new solutions. At the early stage of the process, research is generative – used to inspire imagination and inform intuition about new opportunities and ideas. In later phases, these methods can be evaluative – used to learn quickly about people's responses to ideas and proposed solutions.*
>
> (IDEO 2011, 32)

This positioning statement contains several recurring facets of co-design practice. The key concepts of: empathy, creativity and intuition (as part of a divergent phase) followed by: evaluation, prototyping and feedback (as part of a convergent phase) were also prominent in the two previous texts. Although the HCD's method steps may vary from

those in the two earlier examples of design thinking process models, they are framed by very similar concepts.

The following list is an outline of the key practice steps contained in the *Hear* section. Of course, there is significant additional detail contained in the toolkit. However, the focus will remain on the process model.

Step 1 – Identify a design challenge
Step 2 – Recognise existing knowledge
Step 3 – identify people to speak with
Step 4 – Choose research methods

a. Method: Individual interview
b. Method: Group interview
c. Method: In context immersion
d. Case study: Overnight stay on the field
e. Method: Self-documentation
f. Method: Community-driven discovery
g. Method: Expert interview
h. Method: Seek inspiration in new places

Step 5 – Develop an interview approach

a. Method: Interview guide
b. Method: Sacrificial concepts
c. Case study: Mock shops in rural Ghana
d. Method: Interview techniques

Step 6 – Develop your mindset[3]

a. Mindset: Beginner's mind
b. Mindset: Observe vs. interpret

Each of the steps is supported by a number of *Tips*, that advise the practitioner on potential opportunities, and *Watch Outs* that warn of likely pitfalls. Both of these elements are specific to the current activity and seem pragmatically intended to support effective execution of the process. Many examples relate to reframing focus to the human-centred aspects of the design challenge, as well as managing group dynamics and cultural elements

[3] Note the reference to *mindsets* here, rather than methods.

to support effective collaboration. For instance, reminders are given on the need to ensure appropriate representation by both genders whist warning that some cultures may be resistant to males interviewing females or may wish to unduly showcase male success.

With its bias towards specific action, the technical guidance of the HCD provides a very different perspective to the conceptual guidance of the Stanford module. Not only is the HCD deliberately positioned as a practical toolkit but it is also intended for fieldwork with users subsisting on under $2 per day. The Stanford material is more general in nature, being positioned as a professional education resource that is made available commercially, and uses a luxury consumer sector as its illustrative environment. Nonetheless, there are clear technical and conceptual matches, such as in the exposition of techniques like: observation versus interpretation, engagement of extreme users and the goal of unearthing users' feelings and stories.

6.4.2 Create

The goals of this section are positioned as: making sense of data, identifying patterns, defining opportunities and creating solutions. These activities mark the gradual switch from divergent to convergent thinking, and it is identified as the most abstract part of the HCD process – relying on a translation of insights into opportunities for solutions.

> *With defined opportunities, the team will shift into a generative mindset to brainstorm hundreds of solutions and rapidly make a few of them tangible through prototyping. During this phase, solutions are created with only the customer Desirability filter in mind.*
>
> (IDEO 2011, 79)

In preparation for the specific steps of the *Create* section, a short review of underpinning theory is presented. The role synthesis plays in moving from oblique inspiration to a more focussed idea is briefly explained, indicating the need for subjective judgement in the "aggregating, editing and condensing" (ibid, 83) of evidence that has been gathered in the Hear phase. Brainstorming's capacity for supporting the generation of "truly inspirational solutions" (ibid, 83) is claimed, subject to adherence to the rules of deferring judgement and building on the ideas of others. Practitioners are reminded to be confident in the tabling of "truly impractical" (ibid, 83) solutions in order that an abundance of unconstrained suggestions lead to an inspirational idea that might be made feasible and viable.

Most specifically relevant for the consideration of design thinking process models are the practices of prototyping and feedback, which are explained as methods of making potential solutions tangible – in a rapid and low cost way. Prototyping is positioned not only as a means of 'building to think' (enabling the designer to learn more about their concept) but also as a tangible focal point for user feedback (preventing premature attachment to an initial idea and connecting the user "directly back into the design process" (ibid, 83)).

The key practice steps contained in the *Create* section are outlined below:

Step 1 – Develop the approach

- *a.* Method: Participatory co-design
- *b.* Case study: Engaging local artisans as co-designers
- *c.* Method: Empathic design
- *d.* Case study: Bringing eye care to children in Indian villages

Step 2 – Share stories

Step 3 – Identify patterns

- *a.* Method: Extract key insights
- *b.* Case study: Finding insights for effective marketing to farmers
- *c.* Method: Find themes
- *d.* Method: Create frameworks

Step 4 – Create opportunity areas

Step 5 – Brainstorm new solutions

Step 6 – Make ideas real

Step 7 – Gather feedback

- *a.* Case study: Testing hearing aid protocols for rural India

An important part of the *Create* stage is Step 3 – *Identify patterns*. This marks the shift from divergent to convergent thinking. It also forms a nexus of guiding process and reflexive judgement. That is to say that, despite a number of techniques being made available to the practitioner, there is no guarantee of success in the revelation of meaningful insight. As an iterative process, there is the freedom to return to the *Hear* stage and gather fresh evidence, but even this design decision requires the exercise of reflective judgement. It is important to recognise the apparent 'faith in the process' (that will also be prominent in the examination of improvisation) often hinges on the judgement of the design team (or its leader).

Although the HCD process is ultimately reliant on the design team's judgement, this does not disqualify it as the most effective means of tackling complex human-centred problems. Indeed, in the absence of any obvious alternatives, human-centred design remains credible as a rational approach. It is founded on the construction of credible design options rather than the search for a single correct solution. Moreover, the question that seems to emerge is how to determine the individual merits of the various proprietary processes that compete within the overarching conceptual framework of design thinking (given the influential role of personal reflexivity).

6.4.3 Deliver

The final section of the HCD addresses the challenge of bringing concept solutions into reality, the final step of innovation. The constraining dimension of desirability (for users) informed the *Create* phase, and the *Deliver* phase now sets out to reconcile this aspect with feasibility and viability. The section is also positioned as a potential complement to an "organisation's existing implementation processes" (ibid, 121) such as traditional project management, which controls the timescales and resources associated with a well-understood sequence of tasks.

The specific goals of this phase are listed as: identify required capabilities, create a model for financial sustainability, develop an innovation pipeline, plan pilots and measure impact.

> *Delivering solutions to your constituents means you will need to build the capabilities and financial models that will ensure that the solutions are implemented well and can be sustained over the long-term. You will also need to create a plan for on-going learning and iteration.*
>
> (IDEO 2011, 124)

As with the two preceding sections, *Deliver* includes a concise overview of the key theories associated with this stage. The theme of low-cost methods for testing solutions continues in the recommendation to move from high-resolution prototypes to mini-pilots. These final tests are still intended as experiments that support further understanding of how a solution might work in the real world, and precede a full pilot programme. The technique of role-playing is suggested as a quasi-authentic means of exploring feasibility. Although the HCD does not elaborate on the theories underpinning this approach, it is reasonable to make the comparison to the practice of investigative rehearsal (Howe 2009, Lock 2013), and improvisation more generally. The practitioner is reminded that "many

prototypes, mini-pilots and pilots" (IDEO 2011, 125) will be needed to resolve the solution. This guidance implies the need for sacrificial concepts and brisk iteration.

The contest between the 'new' and the 'old' must still be reconciled in the final stages of design. However, the HCD's encouragement to pursue ongoing design development is intended to ensure that implemented solutions stay grounded in the 'real world'.

The key practice steps contained in the *Deliver* section are outlined below:

Step 1 – Develop a sustainable revenue model

a. Case study: Modelling revenue for new services

Step 2 – Identify capabilities required for delivering solutions

a. Case study: Delivering today's market prices

Step 3 – Plan a pipeline of solutions

a. Case study: Creating a solutions pipeline

Step 4 – Creating an implementation timeline

Step 5 – Plan mini-pilots and iteration

Step 6 – Create a learning plan

a. Method: track indicators

b. Method: Evaluate outcomes

c. Case study: Interventions to reduce unplanned pregnancy

The Deliver section of the HCD is particularly important as it underpins the completion of the innovation cycle, bringing the design solution into sustainable use. Up until this point, progress through the process (excepting moments of creative block) has been within the direct control of the design team. As with much of the material devoted to the practice of co-design, the HCD calls for optimistic belief in the existence of an opportunity for radical innovation. However, a theme of quite reasonable caution emerges in the final section as design concepts start to collide with reality.

> *Every organisation is optimised to achieve what it currently does. If you want to achieve different outcomes, you often need to do things differently than you know or do right now …*
>
> (IDEO 2011, 125)

The quotation above hints at the obstacle of organisational inertia and the navigation of group or community politics that must be overcome to embed change. The influence of the agenda of funders (that may crave revolutionary innovation) versus the resource or capability limits of the organisation (that may require an evolutionary approach) must be reconciled. Therefore, the *HCD Toolkit* guides the practitioner to be cautious in their blend of proposed solutions. The *HCD Toolkit* contains ten case studies, the last of which relates to interventions to reduce numbers of unplanned pregnancies in the U.S.A. This final example is the most detailed but it still does not fully quantify the benefits of the design solution and suggests that many of the 'real world' challenges to embedding a sustainable solution lie ahead.

Consequently, the HCD concludes with a Field Guide that contains 15 specific tools, including a batch of 30 cards that support a visual thinking exercise that assists in enabling users to express their aspirations for the future. In keeping with the preceding content, the guidance for this exercise insists practitioners ensure that they avoid making interpretations for the user and let them use their own words. Equally, there is a reminder on cultural sensitivity when considering fears, as opposed to hopes, for the future – and encouragement to add to the card set if needed (embracing a practical, D.I.Y. ethic). All of these tools may serve to involve stakeholders in the HCD process, and to reduce eventual levels of organisational or community resistance.

6.5 Summary

In order to frame my analysis, I now (very briefly) revisit some of the main theoretical aspects of the related design thinking literature. These are set out below.

In Martin's concept of the knowledge funnel that converges from hunch to heuristic to algorithm to code (2009, 8-9) there is a clear parallel to the processes that are recommended in *Change by Design*, the *Empathize and Prototype* module and the *HCD Toolkit*. All three models start with a poorly understood problem, which may be symptomatic of a more complex and fundamental design challenge. These complex design challenges closely resemble Churchman's (1967) conception of 'wicked problems'. The fact that both the Rotman School and Stanford's proprietary approaches position themselves as effective means of tackling this type of problem is congruent with Buchanan's (1992) argument for the application of design thinking.

Although Brown presents design thinking as a constructive social tool, it also has very significant commercial applications and his responsibilities and motives (as CEO of

IDEO) must be kept in mind. Publications by IDEO and the Stanford *d.school* (Kelley 2005, Brown 2009, Kelley and Kelley 2012) include substantial technical content but their roles as intellectual property and long-form marketing must also be remembered. Brown's recommended approach lacks any deep analysis of some important contextual aspects of the process model. For instance, the structuring of teams, the appropriation of organisational resources and the stakeholder management required to overcome political roadblocks, all go largely unexamined. Of course, his target management audience may be of such positional seniority that it is not hindered by such practical realities. The content of *Change by Design* is by far the most conceptual of the three texts that I have examined.

Brown (2009, 39-40) writes of the need for human-centred design and the need to co-create with end users. Kelley (2005, 114-115) encouraged the use of multi-disciplinary design teams and Wylant (2010) also endorsed this pluralistic approach. Nevertheless, within these collaborative processes, there remains the challenge of applying due judgement in not only 'doing things right' but also 'doing the right thing' (Martin 2009, 115-116). Given the need for interpretation at important stages of all of the process models encountered in the design thinking literature and in this case study, there remains a risk that practitioners may be unable to be suitably reflexive (Crouch and Pearce 2012, 86-87). This effect is potentially most relevant at the points of inflection in the phases of divergent and convergent thinking, where the practitioner must assess whether the preceding phase is sufficiently complete

In this case study I have examined three of the most influential design thinking resources for the management oriented audience. All of these resources originate from the IDEO and Stanford alliance, and each of them recommended its own version of a design thinking process model. I have summarised the key steps of these models in Table 6.1, along with the key steps from models advocated by the Design Council and Martin (2009).

Table 6.1 Examples of design thinking process frameworks

The Double Diamond *Design Council*	**The Design of Business** *Martin (2009)*	**Change by Design** *Brown (2009)*	**Empathize and Prototype** *Stanford (2013)*	**HCD Toolkit** *IDEO (2011)*
Discover	Hunch	Inspiration	Empathise	Hear
Define	Heuristic	Ideation	Define	Create
Develop	Algorithm	Implementation	Ideate	Deliver
Deliver	Code		Prototype	
			Test	

Although the terminology used to label the process steps varies from model to model, each of these design thinking process models has a very similar conceptual basis that reflects a shared *mindset* and a scaffolding *framework* for solving complex problems. Most prominent in this shared framework is a sequence of experimentation that establishes the desirability, feasibility and viability of an idea. Although it is not stated explicitly in the Stanford module, its use of methods for building user empathy in the search for the 'problem worth working on' is entirely compatible with the primary constraint of *desirability*. Indeed, all three forms argue that ethnography (and a mindful rejection of ethnocentricity) is a vital tool for human-centred design. An embodiment of this capability is the prominent design ethnographer Jane Fulton Suri, who has taught at Stanford and remains a senior IDEO executive (Fulton Suri 2005, Fulton Suri and Gibbs Howard 2006). She argued that:

> *Observation reveals what is happening, but it takes interpretation and speculation to understand why. Of course, sometimes there is someone we can ask, but often we notice behaviour or evidence and no one can tell us for sure what it means. Interpretation and speculation inevitably take us a step beyond the purely objective to a subjective level of empathy.*
>
> (Fulton Suri 2005, 173)

In each of the three process models that I examined, the shifts between divergent and convergent thinking were clear. Once a problem is identified the practitioners first move through an exploratory phase, during which any analysis of potential solutions that have been generated is suspended (Brown 2009, 76-78). There may then be an evaluation of synthesised evidence that guides the practitioners to a smaller group of potential solutions. However, in every case the design thinkers were free to 'reframe' the problem and exercise their judgement in moving backwards and forwards within the process framework (as contained in Table 6.1).

Although the authors and presenters of the three resources emphasise the benefits of their respective approaches, it seems reasonable to infer that any master practitioners of collaborative design must remain mindful of their own praxis and maintain a level of reflexivity (Crouch and Pearce 2012, 86-87). Even though the various process models claim to support these complex acts of cognition, they cannot guarantee it. Consequently, the influence of the design thinker's personal reflexivity remains a critical (but not directly observable) input to all three approaches. It not only influences the overall approach but may also have significant impacts at key decision making points that occur during the

process. This effect is particularly important when time is highly constrained, and designers must exercise their judgement 'in the moment'.

In addition, all three of the process models rely upon effective group collaboration under the stewardship of the co-design leader, and in Chapter 6 I likened this pivotal role to that of the facilitative 'joker' that leads the practice of 'investigative rehearsal'. As with many aspects of collaborative design, there are methods and tools that serve to mitigate the positional power of the group leader – but anyone in this role requires reflexivity and judgement in order to differentiate between the modes of harmonious cooperation and dynamic collaboration. In his analysis of effective group collaboration, Sawyer warned of the perils of "groupthink" (2008, 67) and the hidden influence of power dynamics. He highlighted the distinction between 'additive' group behaviours (that indicate a state of cooperation) and the 'improvised' interaction that is the mark of genuine creative collaboration (Kelley and Kelley 2012). Only the latter is likely to support the originality required for breakthrough innovation.

I will explore the practice of improvisation in detail in the next chapter but in light of the reference to it in the preceding paragraph, it will be useful for me to restate briefly some of its key characteristics. These characteristics, particularly those of spontaneity and creativity (Vera and Crossan 2004, 733), support improvisation's status as an exemplar of creative collaboration. Mendonca defines it as a "cognitive activity that requires creativity under time constraint to meet performance objectives" (2005, 94), and this aligns with the recurring calls in the design thinking process models for fast-paced ideation in pursuit of sustainable design solutions. Improvisation further parallels design thinking in that it is performed within a flexible and non-linear process that is framed by a small number of guiding principles - rather than a focus on immediate results (Vera and Crossan 2004). These features of improvisation position it as a collaborative discipline that resembles important aspects of design thinking.

Improvisation also has a more direct application in both the method and mindset of prototyping. It enables the handling of the emergence and ambiguity found in 'real-time' user engagement, as well as the confidence to experiment (with the real risk of failure). Both instances benefit from the capability to 'let go' of an initial idea or the disappointment of initial failure. If prototyping is misunderstood as being the final test of a proven solution (rather than as a means of communicating with a user) this may impede the novice co-designer, and the necessary embrace of imperfection and emergence again points to a useful association with the practice of improvisation (Vera and Crossan 2004, 731-733).

6.6 Conclusion

In analysing the three design thinking resources that are associated with IDEO and Stanford, I have revealed that although each one recommends its own process model (and labels the steps of its model differently from the others) the overarching frameworks are very similar. We now see four significant conceptual commonalities across the three models. These include a similar containing infrastructure (that constrains the iterative journey through phases of divergent and convergent thinking) and the dominant concepts of collaboration, prototyping and reflexivity. The evidence that supports my claim to these commonalities is categorised in Table 6.2.

The category of 'process framework' reflects the few firm process rules of design thinking. For example, the purposeful sequence of divergent and convergent thinking was mandatory in all three of the process models, and this sequence was applied throughout the journey from problem identification to problem solution.

The categories of 'collaboration' and 'prototyping' are action-oriented and observable as either human behavior or in the production of material prototypes. However, both categories also benefit substantially from the design thinker employing an appropriate 'mindset'. Every example that is listed in the table is explicit in each of the three texts, but I use the terms 'reflexivity' and 'praxis' to encapsulate the mindset that the texts explain as being necessary to navigate the design thinking process effectively. This mindset is directly comparable to the type of *designerly* thinking that is described by Dorst's quotation in the Table 6.2. Given that this state of reflexivity is located at the junction of conscious and unconscious competence, I take it to be the capability to think whilst also *thinking about that thinking*.

Nevertheless, despite my conclusion that these shared features exist in the three process models, there remains a potential paradox regarding the interplay of the guiding processes and the reflexive judgment of the design thinker using those processes. In his examination of group collaboration and problem solving, Straus argued that:

> *Without a language of process, without knowing something about the different strategies that can be used to solve problems, it is difficult to learn and acquire new ones.*
>
> (Straus 2002, 21)

Table 6.2 Core features of the IDEO and Stanford design thinking process model

Concept	Concept definition & source	Examples
Process framework *(see also Table 6.1*)	*It involves methods that enable empathy with people, it focuses on people. It is a collaborative methodology which involves prototyping. It involves a series of divergent and convergent phases. It combines analytical and creative thinking approaches.* (Curedale 2012a, 3) *Design Thinking bridges the concrete world of problem identification (observation) and problem solving (solution) with problem exploration (frameworks) and problem reframing (imperatives), in order to implement solutions.* (Wrigley 2017, 237)	*Phases of divergent & convergent thinking:* • Problem identification • Problem exploration • Problem reframing • Problem solving
Collaboration	The hallmark of collaboration is the embrace of creative tension and constructive disagreement. (Sawyer 2008) The improvised *integration of multiple perspectives … and a synthesis that integrates hitherto isolated or incompatible ideas*. (Poggenpohl 2009, 142). *The consensus is that collaboration emerges from synergistic interactions and is therefore more likely to be an iterative and cyclical process than following a direct plan of action.* (Keast 2016, 161)	User input - expert knowledge of 'the self' Power neutrality Improvisation Creativity
Prototyping	*A means of 'building to think' (enabling the designer to learn more about their concept) but also as a tangible focal point for user feedback (preventing premature attachment to an initial idea and connecting the user directly back into the design process.* (IDEO 2011, 83). *Prototypes are physical manifestations of ideas or concepts. They range from rough (giving the overall idea only) to finished (resembling the actual end result). Codesigners create the prototypes to envision their ideas and to display and to get feedback on these ideas from other stakeholders.* (Sanders and Stapper 2014, 9)	Action-orientation Improvisation Experimentation Iteration Making ideas tangible
Reflexivity	The system of the mind that, in a search for self-awareness and an authentic personal narrative, bonds our initial thoughts with any subsequent reflection and evaluation of those thoughts. (Giddens 1991, 53-55) *On some issues we might be novices, on others we might be competent. Thus our ways of working as a designer will be mixed, too, changing between the kinds of problem-solving and reflection that are associated with the levels of expertise within a split-second.* (Dorst 2009, 286)	Empathy Praxis Reframing

His is clear in his support for engaging reflexively with the processes of collaboration - but he does not advocate engagement with any process in particular. A guiding process may be needed but that does not mean that a design thinker must apply any particular

process model in order to succeed. As per my earlier reminders of Tim Brown's principal responsibilities as the CEO of IDEO, it is useful to remember that each of the process models that I have analysed represents intellectual property that is of commercial value. It may be that the advocacy of notionally distinctive design thinking approaches is intended to promote either a specific brand loyalty or a more general aura of theoretical validity (as per the associations with prestigious universities that were explained in the introduction to this chapter). It is noticeable that Table 6.2 is populated with generic concepts rather than specific process instructions that belong to any particular model. Arguably, each text contains the same conceptual material with the differences simply being the terminology and format (that reflect the respective target audiences).

The quotation from Fulton Suri (near the end of the previous section) positions the reflexive capability of the design thinker as being important in establishing the empathy that leads to *designerly* insight. This is not irreconcilable with Straus's argument for process, but it does seem clear that Fulton Suri understands subjective judgement to be the vital ingredient for empathy – rather than any dispassionate process. Of course, interpretation builds upon the observation of evidence, and Fulton Suri makes no suggestion that process should be disregarded. She is simply clear that empathy is the prime component for effective human centred design, and this reflexive capability drives success rather than adherence to any fixed logical process.

In conclusion, I argue that a guiding process and personal reflexivity must co-exist within effective design thinking, and I have provided empirical evidence that even popular design thinking process models (that are marketed as being distinctive) share a core set of defining features. Therefore, I further contend that it seems reasonable for any process model that shares the features presented in Table 6.2 to claim an association with the design thinking discourse advocated by IDEO and Stanford. In my examination of improvisation theory in Chapter 4 (now combined with the similarities presented in section 6.5), I have already provided a theoretical argument for the primary processes of improvisation resembling those of design thinking.

In order to further support my theoretical argument for there being shared features that are observable in both improvisation and the management-oriented discourse of design thinking, I now provide a case study examination of the *practice* of improvisation (including a comparative analysis of its underpinning mindset and methods versus those in Table 6.2). This case study will produce an empirical basis for my theoretical claims, and inform how improvisation and design thinking might be combined in an innovation platform for customer service behaviours.

Chapter 7 Revealing the Processes of Improvisation in Practice

7.1 Introduction

This chapter contains a detailed case study of the practice of improvisation, which produces several well-evidenced conclusions. The case study combines multiple data sources in order to identify the key features of contemporary improvisation practice, and this supports a comparative analysis that reveals the shared features of improvisation and design thinking. I first conduct a semi-structured interview with the principal of a Perth-based improvisation troupe (Just Improvise), and then perform a content analysis of his comments to reveal the key aspects of the troupe's form of practice. In order to focus the interview material sufficiently for inclusion in this chapter, only those elements that most inform the case are presented for review. I have remained mindful of my subjectivity (Crouch and Pearce 2012, 57-59) in making this selection and so these excerpts are largely intended to provide context for the reader, with the full interview transcript being available in the appendices.

In addition to the interview with the principal of the troupe, several improvisational practitioners (from Just Improvise) provide a reflective commentary on video footage of their own performances, immediately subsequent to each performance. My analysis of the data produced with this 'think aloud' method reveals their mental processes, and thus enables a comparison to the articulations made by the troupe's principal. I also compare the claims of the practitioners to those of the improvisation theorists that I examined in Chapter 4. In order to highlight any potential effects of the practitioners' impression management, I apply Goffman's (1971) dramaturgical lens to the various reflections that they offer, and then present a summary of my directed content analysis.

Finally, I compare this detailed description of improvisation to the core features of the IDEO and Stanford design thinking process model (set out in Table 6.2) to identify the similarities – and any important differences. For methodological transparency, I have included an example of my coding method in the appendices.

7.2 Case study methods

On the 4th February 2015, I conducted a semi-structured interview (Denzin and Lincoln 2005, 705) with Glenn Hall, principal of Just Improvise. I had prepared a selection of

questions in advance, in order that the relevant topic areas were explored. A Participant Consent form was issued and completed ahead of commencing of the interview. However, given my goal of facilitating the interviewee's unconstrained explanations and opinions, the questions were designed to be open – or to simply guide the interviewee to a topic for exposition. Examples of the typical question formats are below:[1]

- How would you characterise the journey from basics to mastery?
- Describe your preparation for an improvisation performance?

This style of ethnographic interview (Frankel 2009, Forsey 2010) was selected in order to capture for examination the detailed recounts of how specific improvisation practitioners act, and their routines in regard to cooperative and collaborative behaviours. The lens for the content analysis of these narratives is an interdisciplinary application of narratology (Heinen 2009). This is applied to "investigate the phenomenon of disciplinary interest" (Ibid, 199), as distinct from classical literary narratology's focus on the structural features of the text (Bal 1990). Nevertheless, given the unavoidable subjectivity in the selection of extracts, and co-construction in the resulting narrative, the following steps are taken to support objectivity and transparency of the interviewer's and interviewee's cultural positions:

- The content from the interview is organised thematically (Eisenhardt 1989).
- A limited number of content rich quotations are presented as supporting context for each thematic summary.
- The content from the interview is analysed on the basis of its relevance in supporting or contradicting the key claims from the examination of theory (Krippendorff 2004b, 18-19).
- Recognising that any interview is co-constructed rather than being a neutral transfer of objective information (Denzin and Lincoln 2005, 192-193, Clandinin 2007, 150-151), an experiment is conducted to check the data collected in the one-to-one interview against empirical evidence gathered from two specific instances of the group's improvisational practice.
- This is achieved through the review of the video recordings of two, short improvised scenes. Each video review was conducted almost immediately subsequent to the completion of the relevant scene and incorporates the performers' contemporaneous commentary on the personal mental processes that they could recollect. These recollections are compared to Glenn's articulations during the interview.

[1] The full list of questions is available in Appendix A.

- Recognising that that these participants are all active performers, with an openly positive regard for their interpretation of improvisational practice, their articulations are assessed for the effects of 'impression management' using Goffman's (1971) dramaturgical lens.
- The main themes that emerge from the descriptions and observations of improvisational practice are compared to the key features of design thinking that emerged from the inductive content analysis presented in Chapter 6.

7.3 Just Improvise

Glenn Hall is the principal of a Perth based improvisational troupe. The following segment is a synopsis of his professional biography, taken from his troupe's promotional website: https://justimprovise.com.au/Glennn-hall/

> *An improvisation specialist and spontaneity coach, Glenn Hall is the Creative Director of Perth-based Just Improvise (formerly Spontaneous Insanity), a company that has specialised in improvised theatre, corporate entertainment and improv training since 2000.*
>
> *As an Australian National Theatresports champion, Glenn regularly performs and trains with Impro Australia (NSW), Impro Melbourne, Impro Mafia (QLD), On The Fly Impro (SA) and Impro ACT, and was a founding member and co-creator of Perth improv troupe, The Big Hoo Haa. Stage performance highlights including starring alongside Julia Zemiro in the hit improvised musical Spontaneous Broadway and touring to Brazil with David Williamson's 'Face to Face' for Perth Theatre Company.*
>
> *Glenn holds a Bachelor of Education, and is a member of Curtin University's Vice Chancellor's list. He's lectured in improvisation and theatre at the Western Australian Academy of Performing Arts for over 15 years and is a former member of the Barking Gecko Theatre Company Board. Nearing completion of his Certificate IV in Training and Assessment, Glenn is also an accredited DISC Advanced consultant and facilitator.*
>
> *Glenn also applies his improv skills to the business world creating and delivering Applied Improv training courses and workshops in Leadership, Teamwork and Resilience – drawing on his improv philosophy of the Hive of Nine Be's. Through Just Improvise, Glenn produces unscripted theatre shows (three of which have toured nationally), held the Western Australian licence for Theatresports for nearly a decade, and provides regular improv masterclasses, workshops and courses for the Perth general public.*

7.4 Introducing Glenn

As a preamble to the interview (that lasted 53 minutes), I asked Glenn to outline his involvement in improvisation up until the present day. He explained that he had been extroverted at primary school and had been encouraged by a teacher to consider attending a high school that specialised in teaching drama and the arts, alongside the standard school curriculum. This initiated a 30-year involvement in theatre work. Glenn also explained that the introduction to improvisation as a subject initially involved more structure than pure improvisation, as that allowed the students to get used to embracing failure and imperfection in their performances.

He also went on to clarify that improvisation plays a part in performances that are fully scripted, as improvised elements (where they can be introduced into the performance) enable the actors to feel some sense of novelty and enthusiasm, even though they may have delivered many performances in the same role. Glenn identified the key aspect of this approach as the ability to be 'present in the moment', rather than planning ahead for the subsequent parts of the play.

> *So there's a level of awareness there, of inside that there's the actor as a character, the actor as the practitioner, in a way of, "well, I've gotta make sure I do all these things", and then the third part is almost like an omnipresent persona where you're outside of yourself watching yourself in the play … and so, often, these three things will converge.*
>
> (Glenn Hall, unpublished interview, February 4 2015, 05:16)

I asked Glenn how long it might take to become good at this technique. He responded by claiming that there are three main factors that 'block' students from becoming proficient improvisational performers. These are the fear of making a mistake, the fear of looking foolish and the belief that they "need to be clever" in the way they improvise – when reliance on the processes of improvisation actually removes the need for individual flamboyance. According to Glenn, the sooner that these three 'blocks' can be overcome, the sooner anyone can progress as an improvisational performer. Importantly, he discriminated between being someone who can apply the techniques of improvisation to their daily life, and those who wish to become a professional dramatic performer. Professional theatre training teaches people to become very aware of a number of important aspects of their performance, as well as some other technical capabilities.

> *If you want to improvise in front of an audience, where they pay you money, and you need to do a good job. It's easier for me to take someone that's trained as a performer and teach them to improvise. Because, the use of your voice, the use of your body, the use of your creative imagination – all of those things come through acting training.*
>
> (Ibid, 09:27)

However, Glenn estimated that the vast majority of newcomers almost immediately find some benefits from improvisational practices that they can apply in their daily lives – and on an ongoing basis.

7.5 Emerging themes

Although this interview was semi-structured in order to constrain the overall field of discussion, the dialogue and flow were largely emergent. This section will now group specific comments, or recurring conceptual points, that when associated suggest a small number of core themes. As explained, a number of quotations that are particularly illuminating are presented to provide specific evidence and context for each summary.

7.5.1 Processes of improvisation

During Glenn's recount there were numerous references to the underlying processes of improvisation. Although these cannot be reduced to a standardised sequence of steps, there are several well-established characteristics that serve to harness the creative and collaborative intentions of improvisational practice. Even though these various processes are interrelated, they can be broadly categorised as those that establish the conceptual space for each performance, and those that generate content to furnish this performance space. For instance, techniques such as phases of divergent and convergent thinking serve to construct a performance space, whilst those such as 'the offer' (the juncture of convergence and divergence) serve to populate it with detail that engages the imaginations of the audience members. However, these processes are not wholly distinct and are instead interlinked and reinforcing. Although the integration of these processes during the performance is quite sophisticated, it is possible to isolate them for the purposes of technical analysis.

7.5.2 Constructing the performance space

The following quotations relate to the construction of a conceptual 'space' for each performance. The methods that progress the improvised narrative and gradually populate it with detail create an infrastructure that contains the constructed scene. However, this constructed 'space' is less stable at the start of each performance as it is easier for the performers to creatively reframe the emerging narrative (and thus the conceptual boundaries of the 'space') whilst there is less detail that is firmly established. For instance, an emerging narrative that appears to be about child-custody might suddenly be reframed as being about police-custody. At this stage, individual details or 'dead end' plot lines can be discarded or ignored. This becomes more difficult as the scope of the performance grows and is anchored with the specific details that have already been articulated. This steadily adds to the demands on the performer, as their spontaneous production must fit within the increasingly well-defined context of the scene.

> *There's a thing we talk about called advance and extend. When to advance the story and when to extend the moment. I guess you might say divergent and convergent. And, and a lot of younger or newer improvisers, they want to get to the … the conflict or the 'bad stuff' straight away but first of all what we need to do is … we need to just know where we are, what the world is and who are the people in it. Which requires that divergent kind of stream of thinking. So you give this sense of the world.*
>
> (Ibid, 26:34)

> *So we call that making a platform. And that's all really stories are a platform and then tilt.*
>
> (Ibid, 27:55)

> *You know every story needs a 'yes … but'. "Yes … but one day a knight approached the castle, and he was different". And then we would 'yes, and yes and!' "And he was different because…", you know. He'd come from a great lineage of knights or whatever.*
>
> (Ibid, 28:16)

Yes, and like a tree in a way, I always think of it like a tree you know, you have a tree that grows up a bit and then it grows out. You know, and it spends its time growing out and then it invests time in more trunk and then branches. And that's really it, trunk and then branches. And then from the branches; what's even more fun is the detail – so the leaves, you know, and being specific is what's really … is when things get interesting. You don't have to be clever you just have to be specific. Because if I say once upon a time there was a castle, well everyone's got their own idea of a castle but there's lots of different types of castles. "Once upon a time there was a castle made out of pure white marble. It sparkled", you know. And that gives a whole different feeling as to what kind of story we've got.

(Ibid, 28:41)

… and just on that point, so if you think of it more like novels and we were talking before about Harry Potter. If you think about it, novels are incredibly detailed and very specific. I mean, think even about Tolkien's Lord of the Rings and those things. There's some very specific bits of detail in there, and … and those things don't disconnect us from enjoying the story, they build our enjoyment of it, because when I say that erm … the single leaf and the way the water droplet fell off the leaf and splashed onto the ground. We still all have our own picture of what that looks like, yet the moment is very specific. It's the detail that we love. Otherwise every story is the same.

(Ibid, 29:42)

The material above reveals how the performance is gradually developed by using the recurring method of divergent and convergent thinking, which draws upon the individual imaginations of audience members. The comments below confirm that another part of the overall improvisational process involves also drawing on the collective conscience of the audience - to infuse intrigue via the human fascination with interpersonal relationships.

And, and the other thing is for me when improvisation doesn't work is when it becomes about 'the stuff' and what people tend to forget is … everything we watch all the time is about the relationship.

(Ibid, 34:11)

Glenn introduced the example of the television program, *The Walking Dead*.

> *But what it's about is the relationships. So what we're really interested in is; that zombie that still has a bit of humanity left in them… or the person who has given up, you know, on ever beating the zombies and they've taken on the zombie mentality even though they're not a zombie. It's those relationships that we really care about. And for me that's in any art, in any type of artistic or creative thing it's always the relationships. For me it's not, will they succeed or won't they succeed … because that's just the coin flip.*
>
> (Ibid, 34:58)

> *It's the relationships! It's how it unfolds, not what unfolds, and I think that's important. And Seinfeld uses a very well used improv technique or format which is often there will be 3 separate stories. So you'll have Elaine story, a Jerry story and a George story. And Kramer might have a little thing as well. It's not a linear narrative; it's a non-linear narrative. And what's great about that is that it gives the audience some work to do. Which takes the pressure off you having to surprise them.*
>
> (Ibid, 42:06)

> *For example, Pulp Fiction is a story; the plot is different to the story that we see.*
>
> (Ibid, 43:22)

7.5.3 Populating the performance space with 'the offer'

The concept of 'the offer' was examined in Chapter 4 and it was revealed as being central to the processes of improvisation. The interview with Glenn provided an opportunity for more in-depth scrutiny of the role of 'the offer' and a test of its application in his professional practice. I started by asking Glenn to explain its role.

> *Really, improvisation … and life is offer and acceptance, or offer and not acceptance. There's an informal offer and a formal offer. Erm, a formal offer is for an example if I say to you, "Have you seen the latest Hunger Games movie?" that's an offer to invite you into a conversation about … maybe Hunger Games the movie, and what you think about it, movies in general, movies that you've seen.*

So it's in that offer there's a whole range of different things that we could then talk about. But sometimes offers are informal too, I don't realise I'm making an offer. You know, if I'm playing a scene with somebody and my head's itchy and I start scratching my head just because my, because Glenn's head is itchy, what I train people to do is to notice that as a character thing. So, if I scratch my head once and then I notice, "Oh I scratched my head because it was itchy" if I scratch it again two times, it's a pattern. And so now we've got a pattern. And so now that means something …

(Ibid, 17:52)

I then asked Glenn to elaborate on the conventions for building on 'the offer'.

So that great, the thing that everybody probably already knows about improvisation is 'yes, and …' So you say "yes" to that offer - and saying "yes" is not the word "yes" … it's saying "yes" by involving yourself in that world.

(Ibid, 20:13)

So then you've said "yes" to that idea and you've added the next little bit, and that's how we build on each other's ideas … by saying "yes" and then "and".

(Ibid, 21:10)

I tell people that they've got a bunch of imaginary presents behind each other and you pick up the present and give it a shape and a weight and a size, texture maybe, anything like that. Just by the way you pick it up.

(Ibid, 23:10)

But I don't say, "happy birthday, here's a telescope". I say, "happy birthday, I got this for you". And then the other person says, "thank you for this telescope". Or whatever they perceive it to be.

(Ibid, 23:35)

I interjected here to ask whether Glenn meant that he was deliberately leaving a gap for the other performer to 'fill' with their response.

> *Right and we call that a blind offer. So an offer is; here's this telescope. A blind offer is: "Here. Quickly. Take this!" And blind offers are the most fun bit in improvisation because …erm for me it's like, alright, in my mind I may not know what the thing is that I'm giving you, I'm just picking up a random thing but I may have something in mind. So I think I'm giving you a telescope, you take it from me and it's a blunderbuss. Now I have to drop whatever I thought it was, I can't say, "No, it's a telescope!"*
>
> (Ibid, 23:49)

The anchoring effect of 'the offer' - whether formal, informal or blind – encourages and often demands a problem-finding approach. This seems to be particularly true in the divergent phases of a performance narrative. Glenn spoke of the technique of "advance and extend" through which the created scene is developed (extended) through constructed detail before being advanced along its emergent plot trajectory. Although features such as being present in the moment, not planning ahead and being action oriented, support the progress of the scene, this underlying layer of technique serves to add dramatic satisfaction for the audience.

Along with the details that are added to the scene 'just-in-time' in the extend (divergent) phase, it is the formation of discernible relationships between the characters (themselves often emergent) that largely engages the audience. These relationships may be structured around unexpected emotional responses in order to create suspense, intrigue and implicit expression - inviting collaborative interpretation, which holds the attention of the spectators and participants alike. Glenn had already explained that a skilled practitioner might enable a fellow performer through an implicit response to their 'offer', leaving room for a creative interpretation. In these instances, there are a limited number of distinct plots and the audience has all of its attention available for speculating on the likely resolution of each scene. It seems it is both subtle expression and the creative inflections of the plot (requiring a need for retrospective justification at a potential point of breakdown) that make an improvised performance so compelling.

7.5.4 Collaboration

Following the exploration of 'the offer', I wanted to guide the interview to the topic of the collaborative ethic and how individual egos are managed through improvisation processes.

> *Yeah, ego isn't allowed in the room really, and you're not allowed in the room. You're playing characters … you know, so it's not about you and your idea, and that's the collaborative nature. I think, getting back to that idea of the collaboration is that sometimes people will help make your ideas work and sometimes you'll help make other people's ideas work. You have to be able to let that go.*
>
> (Ibid, 25:22)

> *Because even if it was like well … that was unexpected, erm … you're able to put that into some context or find some way to make that work. And often as well, that's the fun bit. And then you have to work everything out, rather than leaving breadcrumbs like Hansel and Gretel would, along the way so that you know exactly where you've been and how to get back there.*
>
> (Ibid, 31:10)

> *So when it goes wrong, it's generally because … people stop listening to each other. They stop listening to each other's ideas, and they're just trying to make their idea work. Or … they're not affected by what is said to them, they're not changed by what is said to them, because really it's not about the quality of the offer. It's about how the offer is received. How it's accepted that makes it into something. And … about when it goes wrong? I don't know, I suppose it's a matter of taste. But when the improvisation goes wrong it's because there's no connection between the people and their ideas. One person's trying to do their thing, and the other person is trying to do their thing. They're not really collaborating anymore.*
>
> (Ibid, 31:52)

> *Some people are, there's different kinds of improvisers too, when things go a bit wrong. So there's really like those people who want to shine, everybody step back, this is my moment to shine. There are people who are just passengers in scenes, so they don't do 'yes and ...'. They just do 'and … and … and … and'. Yeah, they never help advance the story, there are some people who just advance the story, erm who you know, "One day, we will be married" and then the action is just all about driving towards that point of being married. So it's like building a bridge. It's like you know where you start … you know where you want to finish. You just build a bridge to get there. There's no disappearing down a rabbit hole in all different directions and seeing where you end up.*
>
> (Ibid, 32:59)

The heightened awareness of which Glenn spoke, instils and requires being "single-mindedly present in the moment" and, therefore, remaining wholly connected to the contribution of others throughout the performance. An improvisational performer must remain extremely alert for the presentation of 'the offer', which given its occasional subtlety demands very close attention – as well as cognitive flexibility. Glenn further explained that in fully accepting an 'offer' one must let go of what one had in mind prior to its presentation, and genuinely be 'changed' by embracing its new possibilities. One must be prepared to 'let go' of whatever was in mind prior to the new 'offer'.

A skilled practitioner seeks to build on the material that is presented to them, or to give a fellow performer the opportunity to do the same. They do this rather than resorting to individual flamboyance (so-called *magical thinking*) just to add the next little bit to the emerging performance. Glenn claimed that "when it goes wrong", it is generally because people have stopped listening to each other – and the chain of value-adding connections breaks down. Despite the reported mental rigour that is demanded of the improvisational performer, Glenn locates it as an inclusive field and estimates that its emancipating benefits are quickly available to the vast majority of new participants. As I have argued throughout this project, improvisation is often regarded as an exemplar of collaboration. The evidence seems plentiful and consistent in supporting this claim.

7.5.5 Reflexivity

In the next part of the interview, I asked Glenn to characterise the journey from the basics of improvisation processes to their mastery. He explained that formal acting training teaches performers to be very aware of oneself whilst on stage and although that was helpful it was not central to prowess in improvisation.

> *No, I … it just. What it requires is just a sort of a single-minded commitment to the moment, you know, really. That's what it's all about because whatever's happened is done and whatever the future is hasn't been decided yet, so there's no point paying any attention to those things. The only thing about things that have happened is remembering things that have happened … and understanding when those things may be important. So it's like, I call it retrospective justification.*
>
> (Ibid, 11:24)

I then asked Glenn to explain in a bit more detail the idea of always being prepared to 'let go' of any preconceptions during the performance.

> *Yeah, so that idea of being flexible. Sometimes in improvisation it's fun not to name things straight away, but if somebody does name something then that's what it is. Yeah, that's what it is. So often at times in improvisation you have to let go of everything you thought was happening and everything you thought might be able to happen, erm and just go with what actually is happening.*
>
> (Ibid, 24:31)

> *Stanislavski had that idea of the objective and the super objective. The objective is "in this moment I want you to give me some money". My super objective is "one day I will control the world".*
>
> (Ibid, 48:19)

I have argued that there are complementary processes that are used to construct a boundary for the emerging performance, and processes that serve to populate that loosely bounded space with improvised detail. However, it may be the capability to judge how to *apply* this oblique guidance that is as fundamental as the process framework of improvisation itself. Remaining mindful that "everything could mean something" (as part of a problem finding disposition), seems likely to require a high level of mental acuity – given that this awareness must be maintained simultaneously to performing action. Glenn explained that in the dramatic tradition, an awareness of simultaneously operating with multiple personas is part of a performer's formal training. Nevertheless, he suggests that the vast majority of newcomers could succeed and gain some benefit from impromptu participation in improvisation sessions. This implies that within the improvised act - and despite the suspended assessment of validity - there remains a discernible range in the quality of the performances. This may be because more seasoned practitioners have an array of semi-rehearsed responses (of which their regular co-performers may be aware), but in constructing entirely original aspects of a scene, it seems likely that an enhanced level of self-awareness is necessary.

This form of reflexivity requires not only thinking but also *thinking about your thinking*, and seems evident in the practice of responding 'just-in-time' to an offer in a manner that is coherent enough to connect and add value. It is a reflexivity that is not so reliant on the so-called *magical thinking* that signifies lower order creative processing, and is flexible enough to permit interpretation. This duality of thought (thinking about thinking) is

important in reliably enabling a creative leap forward in the improvised sequence. However, as I explained in section 7.5.2, the creative performer is also obliged to exercise increasing levels of contingent judgment as a result of the ever-increasing constraints of the developing scene. Hastrup (2007, 203-4) explained the role of imagination in the anticipation of what will have meaning (based on continuity with the past) and the creation of the novel (based on discontinuity with the past). She argued that, "social life and individual action are closely intertwined with anticipation and creativity" (Ibid, 194). Reflexivity is needed to navigate this inherent duality successfully.

7.5.6 Experimentalism and originality

Glenn spoke of the need to embrace imperfection as part of the mindset of improvisational practice. He explained the skill of reframing what qualifies as "right" or "correct", and that in applying this practice the newcomer may need to adjust to feeling awkward and out of one's "comfort zone". A key enabler for eventual comfort is the conditioning to remove the culturally embedded fear of failure. This shift supports an experimental attitude of generating and testing a whole range of ideas – without them all needing to work.

> *And so it's like … for me it's removing a lot of the 'blocks', and a lot of the 'blocks', you know, the three main "blocks" that I see in people who want to learn to improvise is: one, they're afraid of stuffing up; two, their afraid of looking foolish; and the third one is … that they need to be clever. They feel like they're not good enough. They need to be more than they are … and so – there - the three main things, I suppose, I mean there's other things, but they're the 'blocks'. If I can remove those 'blocks', the quicker I can do that the better you can get.*
>
> (Ibid, 06:58)

> *It's not getting down on yourself, and not beating yourself up for something that's done and dusted and gone and now you're onto the next thing. And I think that beating yourself up comes into those three things I mentioned, when people are afraid to make a mistake and if they do make whatever they perceive to be a mistake they beat themselves up for it.*
>
> (Ibid, 12:28)

> *People think they need to be original, and unique, when actually the skill of a really good improviser is the opposite of that. You know, they draw us in by giving us things that we can relate to, and being obvious. And then they find a difference from that.*
>
> (Ibid, 13:48)

At this point, I asked Glenn what he believes needs to be 'embraced' and also 'rejected' in order to succeed when improvising.

> *So philosophically it's that understanding of, "You know what? It's improvisation, and sometimes, it's going to suck", and I need to be okay with that. And as soon as I'm okay with sometimes that it sucks, then I can go to the next level.*
>
> (Ibid, 14:50)

> *The notion of getting things right. I think. You know ... because what is right? No, not right. The notion of erm ... 'best' or of 'good and bad'. And I often use that Shakespeare quote "There's nothing neither good nor bad, but thinking makes it so".*
>
> (Ibid, 16:16)

One of the effects of this approach, and the multitude of micro-experiments and innovations that it engenders, is "a sense that this is first time this has happened" (even within a scripted performance). The acceptance that things might "go wrong" kept performers in a heightened state of awareness, whilst knowing that even if things did "go wrong" they had both an opportunity and an obligation to make things work by positively reframing the challenge. Glenn termed this "retrospective justification", that is the incorporation of the apparent defect into the flow of the performance. He argued for the liberating effect of this cognitive process, as it prevents over-investment in a confined course of events, and makes it easier for practitioners to 'let go' of an idea. This preparedness to *fail cheaply,* along with the embrace of imperfection and a bias towards action seem very closely aligned with the characteristics of prototyping evidenced in the earlier reviews of design and improvisation literature, and in the preceding case study of design thinking (in Chapter 6).

7.6 Experimental video reviews

In order to be able to compare as far as practicable the observed processes of improvisation to the statements that Glenn made during the interview, some specific performances had previously been arranged with the other members of the Just Improvise troupe (Chris and Esther). These performances were conducted during the evening on 18th December 2014 at the Bedford RSL Club in Perth. I issued Participants Information Sheets at the start of the session and collected informed consent for the identities of all of the participants to be published in this thesis.

It was explained to the performers that their improvised scenes would be video recorded and then immediately replayed in order to support their reflective analysis and commentary (that would also be video recorded whilst they watched their performances). This experimental piece of performative research (Haseman 2007, 147-157) enabled the players to reflect upon and articulate their mental processes, so that these aspects could be revealed for the purposes of analysis and comparison with the material collected in the ethnographic interview with Glenn. As the performers could not share their thoughts in real-time without breaking the flow of the performance, I adapted the 'think aloud' method to support the most immediate 'retrospective reports' possible (Ericsson and Simon 1993, 149).

In order to control the framework for these performances, and in order to ensure a truly improvised response, I devised a number of simple scenarios that were each associated with a specific service encounter in advance of the recordings. The elements of the scenarios were written on coloured cards and assembled face down, to force an emergent context on the players. Although I knew the various elements, the choice of cards was left to the players – meaning that each scenario was known only moments before commencement of the improvised scenes.

Sequence: 3.a.i. (see below) was selected first and then played out for the camera and reviewed. The same then occurred for the second selection: 4.a.i.

1. A lost luggage counter:
    a) A bag is found
    b) A bag is lost
        i. The customer is angry
        ii. The customer is worried
2. A café:
    a) The customer has a large order
    b) The customer can't decide
        i. They are timid
        ii. They are bombastic and loud
3. A budget airline:
    a) Landing (getting ready)
    b) Taking off (getting ready)
        i. The passenger is frightened
        ii. The passenger is rude and disruptive
4. A five star hotel:
    a) The guest is checking out
    b) The guest is checking in
        i. They keep telling you their story
        ii. They keep asking questions

On completion of each scene, the three members of the troupe were quickly assembled and asked to study the recording of the previous performances. They recollected their mental processes at the time of each interaction. Although this framework had been explained at the start of the session, as well as on the Participant Information Sheet (that has been circulated prior to commencement) the intention was to create an accurate review whilst their memories were still 'fresh'. During this process, the video playback was paused whenever necessary, to allow an explanation or recollection without the next part of the scene being missed. I intervened as little as possible, only occasionally asking questions to prompt an articulation from the practitioners (when it appeared that a thought had just occurred to them).

To make this process completely clear I shall now summarise the group's performance of scenario 3.a.i., in which they played out a scene where (without any preamble or

discussion) they each adopted a role as two passengers and a flight attendant. The transcript of both scenes has been stored to enable future review.

After arranging themselves (and some chairs) into position, and sitting in silence for about thirty seconds, Esther spoke the first line of the scene:

> *Do you think that it's insanity that we can put a man on the moon but we can't smoke on an airline?*

Obeying the golden rule of improvisation, Chris accepted Esther's 'offer' and dialogue commenced. The short scene, of about eight minutes, developed around the premise that Esther was a passenger who was unreasonably irritated by the perceived inconveniences of a budget airline flight. Whilst Esther was loud and assertive, Chris was more hesitant – except for his insistent attempts to turn the conversation towards the subject of him writing a book. Esther quite rudely ignored Chris's efforts and became increasingly irritated – repeatedly summoning a member of the cabin crew, played by Glenn.

Figure 7.1 The Just Improvise team in action (from left: Chris, Esther and Glenn)

Glenn's character was extremely jocular, and oddly over-friendly, adding to Esther's irritation. His character's name (Jarren) also became a recurring source of confusion. The scene played out with Esther frequently pressing the imaginary call button, eventually leading to Glenn's jocular character also becoming animatedly irritated. On reaching breaking point, he then mistakenly directs his frustration at Chris – with Esther becoming

unexpectedly conciliatory. The scene ends with Chris, who has actually done nothing wrong, being warned that he is endangering the flight, and Glenn and Esther retreating to the cockpit for their own safety.

Immediately after the scene, the video recording was played back to the troupe, and their reactions and comments were captured. The opening exchange of comments related to allowing the audience to digest the general scope of the scene and to start to make some assumptions based on personal experience. The trio reflected on how, although they knew that the scene called for a rude and disruptive passenger, that role was unassigned. Without any prior agreement, Esther made an 'offer' to position herself in that stereotypical role and Chris accepted that offer in assuming the identity of the more submissive traveller. As Esther acted to reinforce her role, Chris added dialogue intended to give her options on how to display her inner annoyance through observable behaviour.

The group also referred to three specific techniques that both drove the action forward and allowed the scene to be developed, as the players knew that they could keep returning to these anchors. These three anchors were: Esther's decision to be "annoyed by everything", Chris's one-track mind when it came mentioning the book that he claimed to be writing, and Glenn's choice of the unusual name (Jarren) which created opportunities for repetition and mispronunciation.

Even though this was a short scene, there was evidence of the performers being aware of the informed imaginings of the audience, and leaving gaps for them to fill through (the performers') silence and suggestion. There are also instances of the players exercising self-restraint, in order to allow their colleagues to seize a path for the action. Glenn and Chris both mention flexing around Esther's opening posture at the start of the scene. This supports the claimed practice of suspending ego and seeking to minimise positional power. This is also indicated in Chris's comments on the 'offer', when he explains that he had never thought what Esther suggested (that it was it was "insanity that having put a man on the moon" one could not smoke on an aircraft), but pretended that he had – in order to accept her 'offer'. He also later mentions that, by adding to Esther's initial irritation, he had deliberately adopted a style that supported her position.

It is also notable that, as per Glenn's interview comments about the role of emotions and relationships, this scene is anchored by a social dynamic that transcends any specific, local facts. Esther's character appears irritated, and Chris's character irritating, prior to any trigger in the visible action. The details of the scene serve to add to the underlying

tension that is constructed improvisationally at the start of the performance. The overly jocular flight attendant adds to this dynamic with a deliberately antagonistic contribution to the emotional mix. Also in line with Glenn's interview comments, the emotional postures adopted by each of the players have a knowing contrariness. In being hyper: irritated, irritating or jocular, a great deal is communicated – without the need for exposition. The emotional reversals provide drama - in this case comedic - without the need for any rehearsed content. As Esther states in relation to the confusingly named, and (almost) inexhaustibly cheerful, Jarren: "Yeah, you were irritating and I hated you – so you did a good job".

A small, but important, detail of the scene is Glenn (acting as Jarren) offering a hip flask of alcohol to the passengers. There is no precursor to this act, and it is soon forgotten. In the scene, it seems strangely awkward, and although that 'offer' is accepted it is not extended into the rest of the scene. In the review, there is no judgment voiced on that choice, it is simply absorbed as part of the emergent action. Similarly, on the theme of 'letting go', Chris mentions that he knew a boy at school who was called Jarren but made a deliberate attempt to block those thoughts, terming them unimportant to the constructed scene.

7.7 The presentation of the self

Before drawing any conclusions from the data collected in the sessions with Just Improvise it will be useful to reflect on the unavoidable subjectivity in their comments and reflections. Goffman's (1971) dramaturgical lens provides an effective (and entirely appropriate, given that the interviewees are all dramatic practitioners) structure for framing any potential evidence of their dramatised self-presentations. His categories are set out in Table 7.1, and my observations are then summarised similarly to Lock's (2013) analysis of his performative approach to interaction design (in order to support comparison).

Just Improvise are well known within the improvisational community in Australia and overseas, and have the usual promotional artefacts that convey social status within their community of practice and to their audience: published materials, website, name recognition and media profile. This serves to imply a pedigree of expertise and success in the field, with the usual cultural capital that is associated with such a profile. In selecting the field and the troupe as being topics worthy of close study and analysis, I have co-constructed a 'front' for the interviewees – despite being mindful of the ethical considerations and adherence to the prescribed protocols.

Table 7.1 Goffman's dramaturgical categories

Category	Definition
Front	Goffman terms this the "expressive infrastructure" of artefacts that support the performance. This might include those items that are closely associated with a particular social role or status; becoming props for the dramatisation of the self.
Dramatic realisation	These are the behaviours that are selected by an individual in order to make particular elements of their social situation visible to their audience; the result being a dramatisation of those aspects that they wish to convey.
Idealisation	This is the application of idealised behaviours, or the deliberate rejection of behaviours that might be deemed imperfect, in order to create an impression of enhanced desirability or status.
Misrepresentation	Goffman suggested that false and fraudulent presentations of facets of the self had accumulated to such as extent that it cast doubt on whether there was any remaining truth in social identity and interaction. This dimension of misrepresentation includes active deception and knowing omissions, when either is performed in order to obtain a perceived social advantage.
Mystification	The creation of an air of personal mystery, suggesting social transcendence, and demarcating the social space that enables the effective deployment of the four dimensions listed above.

The one-to-one interview with Glenn was conducted at his home, which quite naturally contained many artefacts that supported his persona as a creative performer with a significant level of learnedness. Although the pre-prepared interview questions were designed to be open and to minimalise interference, they also served to showcase the practice and co-construct it as a topic worthy of detailed, scholarly study. In agreeing to be interviewed and then inviting the researcher to visit his home, Glenn extended a level of courtesy that usually creates a reciprocal social obligation.

As part of a relatively small professional community (and given improvisation's lack of any powerful institutions) Glenn carries a responsibility – as well as a vested interest – for the positive promotion of his personal profile and that of Just Improvise. His story, as presented in his interview, bears the hallmarks of the reluctant hero being called to action and venturing away from the mainstream in order to invoke an inner talent (Campbell 2004, 29) – and his claims about the importance of improvisation relate it to an openness to the experience of life itself. The practice is positioned as being both transcendent and emancipating, whilst also being inclusive and available to the vast majority of receptive participants.

The RSL club where the troupe were video recorded was an established performance space for Just Improvise, and the act of recording their performances contributed to the validation of the material's cultural value and spectacle, despite the modest surroundings. In reviewing the short scenes, the performers made reference to their mindfulness of the role of the audience, even though the actual audience was a single researcher and a camera. This implies a level of outward display, rather than a purely self-contained practice.

Despite the intention of the commentary on the recorded performances, it is not possible to determine the participants' cognitive processes definitively – or to contest potentially confabulated explanations of sensing or anticipating the flow of the performance. Indeed, in being recorded for the purposes of accurate data collection the commentaries became performances themselves. An ambient level of banter amongst the troupe, and a number of improvised in-jokes, suggested a significant level of awareness to the dynamic and a (not unreasonable) desire to show off. The *esprit de corps* of the troupe was noticeable and indicated a self-appointed and exclusive status.

The question of identifying discernible quality is also problematic in this field, given its suspension of analysis and embrace of imperfection. The literature, interviews and commentaries all made references to the most capable improvisation practitioners having a greater level of sensitivity to the calibre of a performance – with them being able to exercise very personal judgment in their evaluation of a scene. Whilst accepting the very coherent arguments (made in context) for the rejection of societal norms around perceived perfection, I remained wary that the participants' commentary was not simply self-aggrandising praise.

Despite these subjectivities, the variety of sources served to enable a full examination of the field of practice, which leads to a richer understanding than would have been available through purely theoretical perspectives. The explicit caution on the potential dramatisation in the self-presentation of the troupe is not intended to disparage their contribution, but is included to fully frame the possible impact on the research. There is no deception in professional performers being inclined to perform and their commentaries served to provide a useful empirical example of improvisation-in-action.

7.8 Summary

The definitions of improvisation in theory seem sufficiently clear. Lewis and Lovatt define it as "the act of creating something new, on the spur of the moment" (2013, 46). Lewis and Lovatt specify its distinction from the broader category of creativity, which often involves a form of cognitive incubation (Ritter and Dijksterhuis 2014), as being its *spontaneity* – that offers "no opportunity for correction and no time for conscious preparation" (2013, 46). Vera and Crossan term it the "the spontaneous and creative process of attempting to achieve an objective in a new way" (2004, 733). They also suggest that improvisation is process (not output) focused, and is founded on collaboration and close concentration on the events of the moment.

> *Improvisation is not about doing one thing right - output view, but about continuously doing things right - process view.*
>
> (Vera and Crossan 2004, 738)

The apparently simple rule of adopting a 'yes, and …' response to build on any 'offer', seems to be the underpinning practice of this overarching philosophy.

However, based on my empirical observation (reinforced by theory), I argue that there is no single process directing improvisation and that there is no set route to the intended goal of a compelling performance. Although, it is clear from the literature and the empirical data that there is a constraining *framework*, which supports coherent practice and demands increasing ingenuity, this might most accurately be termed a form of 'infrastructure' rather than a closed system (Ackoff 1994). The performers confidently rely on this macro-level (and stable) infrastructure on the basis that close adherence will usually lead to creative results. Nevertheless, it is the combination of their personal (and emergent) creativity at the micro-level that produces the most original and engaging performances.

The bridge between the macro and micro levels of the performance is collaboration, which requires increasing creativity as the scene inflects between the various phases of divergent and convergent thinking. No individual knows the eventual resolution of the scene, and they must genuinely suspend their egos - and their assumptions (these being 'changed' by each 'offer'). Thus, the audience is also kept engaged and in suspense through a combination of the (typically opposing) dimensions of coherence and novelty. The systematic combination of these macro and micro level creative processes closely resembles the concept of the double-feedback loop that combines *doing things right* with

doing the right things. This creates a cybernetic system that not only self-manages towards a goal but also continually assesses whether this goal remains appropriate.[2]

Nevertheless, it is reasonable to accept that the direction of the improvisational process can 'wander' in practice, but so can that of design thinking (as the respective theoretical models remain simplified representations of practice). As with prototyping, not everything has to work – or does. Given the consistent claims by Glenn, and as found elsewhere in the literature (Svanaes and Seland 2004, Howe 2009, Lock 2013), that the vast majority of people can quickly and effectively participate in improvisation, it may be that the simple constraints of improvisation's infrastructure supports newcomers to *do the right things* in short bursts. However, to maintain the coherence and novelty of a performance over an extended time period, an additional mental resource may be required – and this resource resembles reflexivity.

As I first argued in section 5.4, reflexivity represents not only thinking but also *thinking about thinking*, and it seems to be evident in the practice of reliably responding to an 'offer' in a useful and original manner. This is as the reliable presence of usefulness and originality suggest that a significant mental capability is being applied (to not only respond promptly but also creatively). This reflexive capability is increasingly tested as the ever-emerging details of the scene's narrative create greater levels of constraint. This is to say that it becomes more challenging to think of something quickly that makes both contextual sense and avoids (by producing an unexpected but relevant link or disruption) the snare of the scene's legacy details. For instance, at the end of a lengthy scene any apt contribution must be generated quickly and make sense in the context of the previous details of the scene. Consequently, the options available to the performer become constrained and they must exercise a higher order of creativity in order to produce a spontaneous contribution that also makes sense.

This requirement for greater levels of creativity to be employed as the scene is developed may then necessitate a conceptual leap forward in the narrative of the improvised sequence, as each performer is increasingly pushed to exercise creativity within the growing complexity of the contextual constraints. As previously explained, performers enjoy significant freedom within the framework of improvisation's guiding infrastructure (such as experimentation and collaboration), which must be filled with their imaginations. However, it may be the increasing constraint of the scene that moves them to a truly creative

[2] Martin (2009, 115-116) identified the effect of this combination as being central to his conceptualisation of design thinking.

performance. As I have argued, this might occur either through the contribution of an entirely new element or a link back to an earlier detail. In any event, there seems to be convincing evidence to suggest that there are two levels of practice. The first is observed as fragmented bursts of creativity (that can be accommodated by improvisation's flexible infrastructure) and the second is a sustained 'flow' of creativity (that springs from the practitioner's skill – or the collaborative skills of the group). Both of these levels are driven by different but inter-related parts of the overarching improvisational process framework.

7.9 Conclusion

As with design thinking, there are established and stable processes that are observable within the domain of improvisational practice.

Rather than revealing an inflexible and tightly bounded system, my case study has identified a flexible framework that constrains the core processes of collaboration and confidence in experimentation. These qualities were also observed in the case study of design thinking processes, but there are even deeper similarities. Creative collaboration, which relies on power neutral relationships that support contributions from all participants, is at the heart of improvisation and collaborative design. In addition, prototyping (creating and offering something tangible to a user in order to express a new idea) is central to design thinking and improvisation. In the latter it manifests itself as the 'offer', which is the core improvisational process – and the constraint that inspires the simultaneous search and production of a creative response.

Even though they employ some different tools and have very different communities of practice, my comparison of design thinking and improvisation (in theory and in practice) indicates that they actually employ extremely similar processes and attitudes. This evidence suggests that improvisation might serve as a robust collaborative design method, especially when applied to the development of "behavioural productions" (Miner, Bassof and Moorman 2009, 301) rather than tangible goods.

Nevertheless, to reach the highest levels of group creativity the most effective applications of collaborative design and improvisation still rely on the influence of the 'joker' – who is represented by the skilled co-designer (in the former) and the mindful performer (in the latter). These roles both rely on personal reflexivity and ongoing praxis. As with the evidence on the accessibility of an introductory standard of improvisation, it seems apparent that simply participating in design thinking does not (in itself) confer the

status of an expert designer. This remains a more clearly defined professional role (Cross 2004). Therefore, to understand the potential for combining improvisation and design as a reliable approach, it is important to explore how the benefits of design expertise might be infused into the collaborative process - without the introduction of the positional power that may often stifle creativity and experimentation. This exploration will be presented in Chapter 9, as part of the design criteria for any 'action platform' that supports innovative customer service behaviours.

In order to provide further context for the design of such an innovation 'action platform', in the next chapter I present a case study of customer service. In particular, I examine the 'anticipatory service' model of The Ritz-Carlton Hotel Company to reveal its collaborative and improvisational aspects. In addition to identifying how the Ritz-Carlton model reduces undesirable variation in its service delivery, I explore how it increases desirable variety to achieve customer delight. This case study further reveals the influence of power dynamics (that have been shown to be important in design thinking and improvisation), as well as grounding the potential application of improvised design in an industrial context.

PART B –

AN ACTION PLATFORM FOR INNOVATIVE CUSTOMER SERVICE BEHAVIOURS

Introduction to PART B

In Part A of this thesis I provided an examination of the literature, and revealed the role of improvisation that is implied by the design *for* services and design thinking arguments. My analysis of design thinking and improvisational theory also confirmed both fields as heuristic models for creative and collaborative social action. In addition, this analysis indicated that a number of features are common to both fields. I tested this theoretical similarity through a case study investigation of management-oriented design thinking and improvisation in practice, and this comparative analysis of the respective process models provided empirical evidence to support my argument.

Manzini's concept of the 'action platform' is extremely relevant to the development of *an argument for the improvisational design of customer service behaviours* (the central question in this thesis). He describes its effects as supporting a variety of interactions, influencing patterns of behaviour and "leaving opportunities for action and interpretation open" (Manzini 2011, 3). Although the role of improvisation might be inferred from his argument, he does not use the term explicitly. However, section 3.3 established that the type of behaviour that Manzini envisages in any emancipating 'action platform' must be highly improvisational. In recognising that the final interaction between the server and customer is beyond the direct control of the designer, Kimbell claims that their design "remains always incomplete" (2011a, 45).

In Part B, I now address my final research objective by establishing the usefulness of 'improvisational design', and describing how it may support an effective new approach to innovation platforms. I do this through the presentation and examination of a specific emergent human problem domain, which is that of anticipatory customer service (in Chapter 8). My analysis of the key organisational theories that frame this concept also reveals that in addition to optimum service being characterised by improvisational behaviours, it is enacted in a wider system of ever-growing customer expectations. This system demands ongoing 'micro-innovation' to maintain positive customer perceptions.

The case study of anticipatory service is followed (in Chapters 9 and 10) by a proposal for an innovation 'action platform' that encourages a form of 'improvisation design'. This theoretical demonstration is grounded through its application to actual scenarios from the customer service industry. This 'action platform' concept responds to the gap in design knowledge by addressing the 'wicked problem' of how a design *for* optimised customer service may be made 'complete' through active collaboration with the service worker.

Chapter 8 The Importance of Variety in Customer Service

8.1 Introduction

In the opening chapter of this thesis, I introduced my argument that reliably delivering personalised customer service represents a form of 'wicked problem' in that it requires the anticipation and harmonisation of a range of social and cultural factors (in order to consistently support innovative server behaviours). In this chapter I now examine some of the human dynamics of customer service systems, in order to establish the need for purposeful variety. I then present an intrinsic case study of The Ritz-Carlton Hotel Company's industrial model of 'anticipatory service'. This case study demonstrates how one luxury customer service brand met the challenge of reliably delivering personalised service encounters (with design thinking consultancy from IDEO), and I expose the model's resemblance to Manzini's definition of an 'action platform'.

Manzini identifies the complexity and ambiguity of service systems, and this calls into question why many customer service firms rely on training new employees in a highly standardised fashion. In the experience driven economy, product and service must be fused inseparably to create additional economic value (Pine and Gilmore 1999, 72). Therefore, the flair with which one's coffee, for instance, is served contributes as much to the overall experience and rationale for the price as the carefully selected coffee beans. Given that most customers are not consciously clear on what might delight them (as surprise is a key factor in that delight), how might the customer service worker consistently hit a performance target that is not only hidden from them - but also their customers?

This scenario parallels typical innovation challenges in which the user cannot comment on what they have not yet experienced (or cannot imagine), and where the designer must present prototypes to iterate towards an original and useful solution. In order to fully expose the various forces at work in this innovation space, sections 8.3 and 8.4 contain an analysis of a framing management theory (Clemmer and Sheehy 1992), which confirms the need for ongoing innovation in customer service environments. The case study of The Ritz-Carlton Hotel Company's framework for 'anticipatory service' is then presented in section 8.5, and I analyse it to identify those aspects that reduce undesirable variety and increase desirable variety. This analysis establishes the resemblance to Manzini's conception of an 'action platform' that makes "certain kinds of behaviour more difficult

and others more probable while leaving opportunities for action and interpretation open" (2011, 3). My thorough examination of the customer service domain provides the rationale for the design criteria for the 'action platform' that is described in Chapters 9 and 10.

8.2 Revisiting the 'moment of truth'

As I explained in section 3.2, the potential for value creation is only realised at the moment of server and customer engagement. The value created for the customer is a function of their personal perceptions, expectations and behaviours. These 'customer side' aspects of the encounter are clearly beyond the control of the service firm but the 'employee side' factors (such as their precise behaviours during any encounter) are also beyond its direct control. As Normann points out, a large firm may be reliant on the successful navigation of huge numbers of these individual 'moments of truth' as part of its ongoing service operations. What tactics might a firm employ in response to this complex problem? In the next section I will present some of the considerations theorised by Normann, before examining these in an organisational context.

Normann locates behavioural innovative as a "means whereby quality and cost efficiency can both be achieved" (1991, 23). This is an important claim as such innovation offers a method of breaking what is generally accepted to be a linear relationship between quality and cost (being that quality cannot be increased without a proportionate increase in cost). The social effect that Normann identifies as being a means of breaking this typical linkage is the plasticity of human behaviour and emotions. He argues for the reliable creation of a 'positive social dynamic' that acts to leave both the customer and the server "uplifted" (ibid, 68). In the right circumstances human beings can produce a notionally inexhaustible stream of desirable behaviours that are pleasing to the recipient. Prior to the rise of the digital economy, it had been unusual in matters of economic exchange for production to be continued without eventual depletion of the supplier's inventory. Normann's insight is that in the scenario of human-to-human interaction this need not be the case as the perceived value of relational behaviours could be exchanged endlessly – and to mutual advantage.

Nevertheless, the workplace culture that supports the ongoing 'micro-innovation' that responds to the situational challenge of the 'micro-situation' must incorporate particular human-centred dimensions – as well as achieving clarity on how it constrains or enables behavioural variety (ibid, 106). Normann identified that perceived autonomy was central to the server's inclination to offer the 'uplifting' behaviours required at the 'moment of truth' (ibid, 90). In addition, empathy towards clients' needs was required to diagnose what

type of behaviour might prove effective (ibid, 201). Even with the motivation and capability, service employees require training in a range of 'interactive skills' (ibid, 107) that support the effective deployment of their chosen behavioural approach. There will be a detailed investigation of the implications of these factors in Chapter 9. However, I shall now turn to the industrial and organisational effects of the 'moment of truth' model.

The first edition of Normann's work was published in 1983, and in 1987 Jan Carlzon (President of the Swedish airline SAS) explained the focus of a new style of service leadership that he was bringing to that struggling company. The focus was to be what he had recognised as the 'moment of truth' (Carlzon 1987, 3). He claimed that the definition of the SAS brand existed only in the expectations of its customers, and as the interface between the company and these customers was the moment of engagement with front-line employees, this was the critical moment when each customer defined the brand. Carlzon explained to his management team that there were millions of these 'moments of truth' each year, and that only a front-line service employee, who had the most relevant and up-to-date information, could possibly know the best response in each of these moments.

Carlzon rallied against the prevailing management style of centralised decision-making, explaining that the actual operation of the company relied on millions of small decision that were taken – or avoided – whilst company management remained oblivious (Carlzon 1987, 31-39). The apparent control created by centralised decision-making had become a dangerous fallacy as the pace of change and inherent variability in business increased. Carlzon's strategy was that the firm should organise itself to support those employees at the service interface, and to delegate responsibility for quick-fire decision making in the 'moment of truth'. This bold approach, and the impressive improvement in the company fortunes that soon followed, became popular as an exemplar for the service quality movement of the 1990s. This second wave of quality focus followed the substantial improvements that had been achieved by the manufacturing industries, especially Japanese motor vehicles, during the 1980s. Indeed, employee empowerment became the goal of many service-oriented companies.

Some twenty years' later, the business and scholarly communities turned their attention to another 'Maverick CEO' (Nayar 2010) who seemed to be saying much the same thing as Carlzon had said. Vineet Nayar identified the key juncture in the Indian technology services firm, HCL, as the interface between front-line employees and the customer: what he termed the Value Zone. Nayar explained that customers rarely talked about HCL's products, service or technologies – and mostly spoke about their employees. Again, the driver of this

effective change and improvement in value creation was highlighted as empowerment, through transparency of information and an organisational re-design that made the supervisory and functional departments accountable to the front-line.

The apparently successful transformations of both SAS and HCL are well reported in the business literature. They are included in this review to highlight how despite being easy to identify, the key features of a company culture (that is customer focused and empowering of its front-line teams) remain difficult to emulate (Kofter 2007). The pursuit of outstanding customer service that leads to an active sense of loyalty to a brand or firm remains a primary goal of many contemporary companies. In fact, there are strong arguments to suggest that in an age of increasing global competition this active loyalty is a vital requirement for sustainable economic success (Roberts 2005, 35-36). Why then does it remain so elusive?

What seems clear is that, as the proportion of value that is created by a worker through their knowledge or imagination grows, the more important it is to design for a genuine level of intellectual and emotional engagement in their job role. It is the responsibility of leadership to initiate and sustain this engagement, and the workplace environments and incentives of the past now seem misaligned with the priorities and values of the modern worker. The financial prize for not only commanding the respect of the consumer (through reliable delivery of core expectations) but also winning their love (through a new level of originality and intimacy) is very substantial (ibid, 146-152). Given the potential rewards, why does this cultural shift seem beyond the reach of many business leaders?

A critical point that is often missed by those leaders is that, in the hierarchy of customer needs, the behavioural element of a service experience is often the endpoint of the delivery of a distinct sequence of other commitments to the customer. The friendliness of an airline employee is of little use if the airline has lost your luggage due to deficient processes. This aligns with Roberts's (2005) point that a feeling of love, identified as critical in achieving customer loyalty and advocacy, can only follow an estimation of respect. An emphasis on heroic recoveries and sporadic largesse has led to 'The Trivialisation' of Service' (Heskett, Sasser, and Schlesinger 1997, 6-7). For a company to succeed in its service promise, it must have a very reliable means of delivering its core activities and processes. The value added by attractive service behaviours is limited to occasions when these behaviours accent the expected delivery of the core promise of the offer – or the very occasional recovery from defective delivery. The complexity of these processes demands careful design in order to consistently deliver against the core expectations of customers (ibid,

153-169). Yet beyond this, there remains the ‘wicked problem’ of reliably harmonising service behaviours within the resource constraints of the firm. As this is our main area of focus, some of these challenges will be explored in the following sections.

8.3 The Three Rings of Perceived Value

As I have just explained, the opportunity to gain reputational advantage through excellent service delivered by an intrinsically motivate workforce remains a goal of many organisations. However, a critically important point that is not made explicit in Normann’s model is the effect of the human dynamics associated with ‘perceived’ value. Section 1.3 previewed this phenomenon, which relates to the ever-growing expectations of customers. What may be surprising and ‘uplifting’ the first time it is experienced, ceases to be so after multiple encounters. Consequently, mastery of the ‘moment of truth’ demands ongoing ‘micro-innovations’ in response to the endless stream of micro-situations.

An enduring model that neatly represents this challenge is the Three Rings of Perceived Value (Clemmer and Sheehy 1992). This model positions customers’ core needs, the things that they expect and ask for, as an inner ring. A second ring, signifying those aspects of a service that support the core product, encircles this. These aspects are those that were also fully expected, but not specifically requested by the customer. For instance, clean sheets on a hotel bed.

The reliable delivery of these two, imagined, ‘rings’ leads only to a neutral, non-defective, service experience. Although this will not trigger any negative feelings in a customer, it will not lead to the feeling of delight, that is associated with higher than expected perceived value. The third, outer ring, of the model represents this zone of delight, where customers’ expectations are exceeded. These aspects are not requested nor are they expected. Thus, activity in this zone is necessary to transition the customer to the status of a delighted advocate. The Adaptation Level Theory effect (Helson 1964), accurately observed by this model, means that those things that are novel and delightful at the first encounter soon shift to become part of core expectations. Therefore, the enterprise in the third ring has to be constantly reinvented and re-established in order to maintain the advantages of customer delight and advocacy. This presents a compelling design challenge.

Deemed to be those little things that matter most, and in light of the need for endless reinvention, it is argued that unexpected but pleasing service behaviours notionally coming at no or small cost to the firm – are the activities most suited to this third ring. Given the

relative plasticity of human behaviour and, in the correct circumstances, people's capacity for hospitable action – this seems sensible. Success in these 'moments of truth' may move customers to being brand advocates (Clemmer and Sheehy 1992, 37), and this brand advocacy proves more effective than expensive mass marketing. From this argument, the strategic benefits of behavioural service quality are claimed. This is the context for how 'improvisational design', when applied in the form an 'action platform', might sustainably restock the third ring through its support of ongoing 'micro-innovation'.

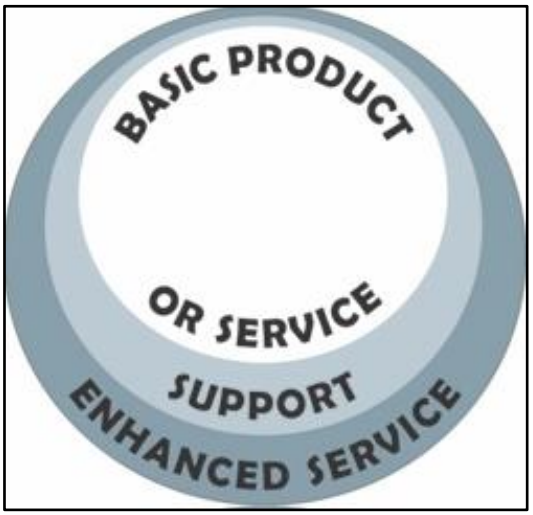


Figure 8.1 The Three Rings of Perceived Value (Clemmer and Sheehy 1992, 31)

8.4 The importance of variety in customer service

To further develop the argument that original forms of interaction design may support the optimised management of customer service through sustainable micro-innovation, it will be first necessary to clarify what is actually understood as the service industry in contemporary economic and social terms. Vargo and Lusch (2004) made the distinction between services and service, the former being "an economic category in contrast to goods" and the latter being "a fundamental activity of economic exchange" (Kimbell 2011a, 43).

Services used to be deemed to be almost wholly distinct from products due to a number of key differences, including their intangibility, variety, lack of perishability and simultaneous production and consumption. Pine and Gilmour's (1999) seminal work, *Welcome to the Experience Economy*, argued that products and services would be increasingly consumed as part of a single, consumer experience. This has been the trajectory of modern developed economies that found themselves on high value services that can be traded globally. In addition to the traditional forms of economic value that are

produced by well-designed services, there are also significant sustainability factors that may be appropriated by the firm and society, as services – and behavioural services in particular – do not usually rely on the consumption of material resources and energy for their delivery. Ceschin (2013) identifies the benefits of the purposeful and complementary design of these sustainable product-service systems.

Nevertheless, product design has been the traditional focal point of systematic innovation and, as products and service blend into a single consumer experience, where value in use overtakes value in exchange; a narrow focus on technology proves insufficient (Kimbell 2010). This is because the purpose of customer service is the creation of value for the recipient. The gauge of this value comes in the subjective perception of the customer, and it is perceived as individuated human experience. A shared journey on a rollercoaster, although materially identical, might result in very different experiences for the passengers. For instance, one rider might find the journey exhilarating and another terrifying. Although less obvious in the observable, physiological response, the same is true for all journeys through a customer service process. In a stable and predictable process, it seems reasonable to claim that the range of experience would be along a natural distribution, with a central tendency. We might reasonably assume that there would then be typical patterns of variation within that distribution.

This variation in the customer's experience is driven by both their individual propensity to positive or negative feelings and the actual delivery of the service journey (the quality of which may vary from its specification). This combination means that the emotional outcome is varied and personal. It would seem likely then, that the interface with each customer might also need to be variable and personalised. Indeed, increasing volumes of service interactions are experienced digitally – and with, effectively, exact uniformity in their delivery. However, the circumstances and disposition of the human being who forms part of that interactive system might be quite different, leading to a variation in experience. This aspect aside, it is fair to say that the most sophisticated service providers will have invested significant time and money in investigating the cause and effect of their digital offer on the user experience. The detail of the UX movement need not be covered here, other than to state that the delivery of a digital experience has already been refined to computer code – the most stable and replicable form of knowledge, with the fullest level of control and minimum amount of variation.

When humans are dealing directly with other humans, these ideal conditions rarely exist. Manzini recognised this in his description of the design of an effective 'action platform' in his argument that:

> *It should be said that this basic element, the need to find a balance between what we try to fix and what is to be left free, may be seen and evaluated completely differently according to the specifics of each service and the design culture of its proponents. It may consequently lead to different strategies for the reduction or enhancement of the components that cannot be planned in advance.*
>
> (Manzini 2011, 3)

Depending on the purpose of the interaction, this may pose a problem or create an opportunity, as there are aspects of delivery in which the most beneficial course is the reduction of variety – and others where it is the increase in variety. In service matters where accuracy is the most important factor, such as safety; hygiene; financial exchange; or time sensitive events (such as the delivery of a parcel or the arrival of a train), value – as perceived by the customer – is created by the predictability that comes from minimal variation. However, where relevant surprise is the primary factor, then variety must be supported and encouraged. This is the interplay of what Lee (2007, 9-16) termed 'process and perceptions', and Roberts (2005, 146-152) expressed as 'respect and love'.

Larger firms may now make use of predictive analytics to bypass the need to grasp true cause and effect, and then take effective action based on correlations (Bryant 2016). For instance, as long as a firm knows that men with beards reliably prefer green-coloured jeans, it does not really need to know why that is the case in order to take advantage of the link. Although this increased reliance on data suggests the reduction of some forms of management control, it squanders the opportunity to gain a deeper insight into an aspect of social complexity and to utilize the key channel of economic exchange – the relationship (MacNeil 1985). This is particularly important as the social world is always under construction through the generative effect of the human relationship; the authenticity of which relies on its naturally improvised nature (Hallam and Ingold 2007, 6-9).

To make this phenomenon absolutely clear, it will be useful to provide (in addition to the one provided in Chapter 1) two recent, autobiographical examples:

- My observations during November 2016 indicated that checkout servers in the major grocery chains have all been encouraged to ask customers the type of innocuous questions that friends might ask each other. A typical question is, “How has your day been?” I visited my local grocery store several times at the same time of day, and was often served by the same person (whom I recognised). They asked me this question but, after about ten visits they still did not seem to recognise me, and they persisted in robotically asking me exactly the same question. Although the server was polite and, presumably, met their employer’s requirements, it was a wholly inauthentic and eventually counter-productive attempt to imply the interest – and trust – that is natural to a warm relationship. I also suspected that many customers did not wish to share meaningful details of their day with a complete stranger, in front of an audience of fellow customers.
- During June 2017, I visited a casual dining restaurant in the UK where the server engaged with the first person in our party of four in, what initially seemed to be, a spontaneous and personal manner. Whilst handing a plate to my daughter, the server said: “There you go, sweetheart”. My daughter responded with: “Thank you”, and the server then said: “You’re most very welcome”. She then used the same phrases identically for the subsequent three members of our party. The use of striking, colloquial language immediately caught my attention – and was initially quite delightful. However, the exact repetition soon revealed that this was a habitual and inauthentic interaction, which was transactional rather than relational. Instead of creating perceived value, it was destroying it.

Again, it seems reasonable to consider why these firms had not done more to assist their employees to deliver the type of fluent service that exceeds customer expectations. It seems very unlikely that an equivalent recurring defect would occur in the realms of consumer electronics or digital interaction. Yet, in customer service environments it is fairly typical, for the various reasons that have just been discussed.

8.5 A model for anticipatory service – Ritz-Carlton

Large digital service providers may be able to predict the full suite of customer requirements. Their digital channel supports consistent delivery of content that is predicted as being personalised; whereas the many permutations of human-to-human service are largely unforeseeable by the firm. Therefore, the exact circumstances of a customer service interaction must be determined by the server, and addressed with an - at least partially -

improvised response. This demands not only the inclination but also the means to perceive and appropriately respond to the situation. Consequently, the ideal service actor requires exquisite sensitivity (to anticipate a customer's needs) and creativity (to generate a useful but original response), in addition to the motivation to act and consistently apply these abilities. How might the many service firms that are still dealing person-to-person realistically support these characteristics?

Hall and Johnson (2009) frame the nature of this problem as being the distinction between science and art. Their resulting recommendation is to "develop an infrastructure to support art". They argue that the delivery of this infrastructure is under-pinned by four goals: creating appropriate metrics, getting art and science to work together, building an effective training program and tolerating failure. Whilst this guidance seems broadly appropriate, it is far from specific – and is couched in the traditional language of business and management. Alternatively, can this need for both logic and creativity be addressed by a combination of improvisation and design thinking?

Interestingly, Brown makes repeated references to improvisation - both in his outline of IDEO design practice (2008, 77 & 97) and in his recount of a design project for Ritz-Carlton (ibid, 122-123). This particular design project was named Scenography and its goals were to empower "employees to seize opportunities when and where they see them and giving them the tools to create unscripted experiences". This project built on earlier work by The Four Seasons hotel group that included improvisation training, on the basis that a "real experience culture is a culture of spontaneity". To support this culture of spontaneity employees where encouraged "to become design thinkers themselves" (ibid, 122).

As part of this 'Scenography' project, the IDEO design team had initially presented the hotel teams with an overarching portfolio of inspirational, visual material that established the emotional pitch of a desirable experience. The IDEO team also designed a template to support the assessment of ongoing delivery against a range of initial service scenarios, as well as the means to choreograph new scenes. This suggests a balance of influence between the frameworks designed with IDEO and the freedom the teams then had to innovate within them. Although Brown's claims imply an aspiration to some level of improvised design, what remains unclear is whether the Ritz-Carlton hotel employees were acting credibly as real-time design thinkers (once the IDEO design team had departed). If so, what were the specific processes and effects of the improvisational method that they employed?

More generally, the luxury hotel sector provides an excellent example of operations that strive to provide distinctive environments and customer service experiences, through a blend of designed assets and team behaviours. However, The Ritz-Carlton Hotel Company would certainly stand as one of the most prestigious groups within this class. On its global website (www.ritzcarlton.com) it professes to be guided by a framework entitled The Gold Standards, which are the foundation for its model of anticipatory service. This model aims to fulfil "even the unexpressed wishes and needs" of the firm's guests, and is founded on a set of twelve service values. An examination of these values enables an assessment of the ongoing beliefs and behaviours that are intended to drive the anticipatory service model. I present the model below:

Table 8.1 Ritz-Carlton Service Values: I am Proud to Be Ritz-Carlton

1.	I build strong relationships and create Ritz-Carlton guests for life.
2.	I am always responsive to the expressed and unexpressed wishes and needs of our guests.
3.	I am empowered to create unique, memorable and personal experiences for our guests.
4.	I understand my role in achieving the Key Success Factors, embracing Community Footprints and creating The Ritz-Carlton Mystique.
5.	I continuously seek opportunities to innovate and improve The Ritz-Carlton experience.
6.	I own and immediately resolve guest problems.
7.	I create a work environment of teamwork and lateral service so that the needs of our guests and each other are met.
8.	I have the opportunity to continuously learn and grow.
9.	I am involved in the planning of the work that affects me.
10.	I am proud of my professional appearance, language and behavior.
11.	I protect the privacy and security of our guests, my fellow employees and the company's confidential information and assets.
12.	I am responsible for uncompromising levels of cleanliness and creating a safe and accident-free environment.

Scrutiny of Table 8.1 confirms that the distinctiveness of the intended service model is grounded in the sense of a personal mission for each of the service workers, along with a focus on deepening the brand's relationship with its guests by combining the dimensions of 'respect and love'. This is done via a combination of convergence on applying pre-defined standards, and divergence in original, but useful, personal behaviours. This parallels the 'science and art' proposed by Hall and Johnson (2009). It will also be noticed that each employee is expected to anticipate and fulfil guest needs through a varied repertoire of highly responsive behaviours. Given this system's orientation towards maintaining a problem-finding mindset, and the immediacy with which a memorably bespoke resolution may need to be delivered, there are clear associations with the features

of improvisation. Aspects of autonomy and creativity are also present in many of the twelve value statements.

Of course, any declaration of this style may contain a substantial degree of organisational rhetoric, but the Ritz-Carlton brand is indisputably well regarded within the context of competing luxury hotel groups. It has consistently won awards for excellent customer service. The front-line service team, referred to as its Ladies and Gentleman in the Ritz-Carlton lexicon, are explicitly named in its service manifesto as the most important resource in the group's pursuit and strengthening of the Ritz-Carlton brand – and the differentiating factor that it claims as its Mystique. Let us now consider the generic elements that would need to be present to fulfil this model for anticipatory service, via an analysis of the twelve published Ritz-Carlton Service Values.

Firstly, it is important to highlight that as outlined above and contextualised in section 8.4 the framework refers to employee behaviours that address both the minimisation of variation in the customer experience, as well as those that create useful variety. For instance, domains such as cleanliness, safety, privacy and security, rely on consistency and uniformity. Conversely, creating "unique" and "personal" experiences for guests rely on a bespoke and customised approach. It is notable that those behaviours that are intended to develop relationships and increase variety are prioritised in the top half of the list. In Table 8.2 I have categorised the elements of the Service Values in light of whether they are intended to increase or reduce variety. It is clear that the model is intended to address both the increase and reduction of variety, as per Manzini's conceptualisation of the 'action platform'.

Analysis of the anticipatory service model components indicates that the employee must: perceive the problem (before the guest is aware or expresses it); generate a useful solution (which is often original); and be prepared to 'take charge' of the situation through personal action (with the associated risk of failure). This all needs to happen 'just-in-time' in order to pre-empt the customer's articulation of the problem, as this anticipation creates the delightful 'moment of truth'. The self-guiding creativity, spontaneity and experimentation that are embedded in this group of behaviours make the framework directly analogous to the features of design thinking and improvisation that I identified in this Chapters 6 and 7 respectively. However, on the basis that most customer service systems fail to meet the high standards perceived by Ritz-Carlton guests, it seems reasonable to accept that a culture that is uncommonly supportive of purposefully differentiated customer service prevails within this particular organisation.

Table 8.2 Analysis of Ritz-Carlton Service Values[1]

Elements that increase variety	Elements that reduce variety
1. I build strong relationships and create Ritz-Carlton guests for life. *	4. I understand my role in achieving the Key Success Factors, embracing Community Footprints and creating The Ritz-Carlton Mystique.
2. I am always responsive to the expressed and unexpressed wishes and needs of our guests.	9. I am involved in the planning of the work that affects me.
3. I am empowered to create unique, memorable and personal experiences for our guests.	10. I am proud of my professional appearance, language and behavior.
5. I continuously seek opportunities to innovate and improve The Ritz-Carlton experience.	11. I protect the privacy and security of our guests, my fellow employees and the company's confidential information and assets.
6. I own and immediately resolve guest problems.	12. I am responsible for uncompromising levels of cleanliness and creating a safe and accident-free environment.
7. I create a work environment of teamwork and lateral service so that the needs of our guests and each other are met. *	
8. I have the opportunity to continuously learn and grow. *	

In contrast, an investigation (Workstar 2012) of the induction method for new employees of McDonalds in Australia showcases the fast-food brand's goal of "getting new employees ready to work on their first day" through a one hour online module that focuses on: 1) understanding critical policies, 2) requirements around safety and hygiene, 3) the McDonald's culture and dedication to their customers. The investigation reports that some 30,000 new starters per year - representing approximately one third of the company's total domestic workforce - use this module. The scenarios of Ritz-Carlton and McDonalds reveal the assumed price to quality balance of established service models: premium pricing equals relational service, whilst economy pricing inevitably equals transactional service (the sort where the server can be trained in an hour).

Although McDonalds is a very successful global brand, its service model has been specifically designed to eliminate the need for personal service, in pursuit of industrial efficiency. In fact, Manzini refers to this approach as the *McDonald's model*, "where there is a precise protocol for every interaction" (2011, 3). Inevitably, speed and accuracy are

[1] The numbering of the items in Table 8.2 refers to the position of each item within Table 8.1 – Ritz-Carlton Service Values: I am Proud to Be Ritz-Carlton. The elements marked with an asterisk are human-centred, which indicates complexity rather than uniformity. This is reflected in their categorisation.

pivotal to fast-food service, but this transactional approach may serve customer service trainees very poorly in that it fails to recognise their lifetime of relationship experience and the innate capacity for improvisation that was evidenced in Chapter 4 and section 7.4. In limiting their scope for personal authenticity in this way, it may also have an unintended de-humanising effect. In realising the fount of individual experience that could be accessed at little or no cost, it is initially surprising that McDonalds has not sought to collaborate with its service teams.

However, cultural aspects such as high-trust relationships and employee autonomy must be in place to support team collaboration. By deliberate design, these aspects are not part of the McDonalds operating model. In recent years it has sought to automate large parts of its customer interactions completely, through the use of automated ordering terminals. Due to the level of capital investment that is required, this option is not available to many service-based firms. Between the economy-orientation of McDonalds and the premium-orientation of Ritz-Carlton, there exists a very substantial mainstream. How might organisations in this category collaborate fruitfully with their employees to enhance their performance?

8.6 Conclusion

I have now conceptualised why those firms that must provide customer service face-to-face have increasingly sought to empower those employees working at the interface with the customer. This devolution of the employer's power is intended to reflect the complex interrelationship of server and served, through which the service experience is co-constructed. Nevertheless, what often appears to have been overlooked is the capability of autonomous servers to draw upon their own lived experiences to optimise this human interaction (the so-called 'moment of truth') through improvised innovation.

The tools or methods that support success in this complex task remain rare. They may need to be provided in a tangible form or in the intangible permission to act spontaneously and creatively. To optimise a service encounter the server must be supremely responsive to the situational requirements of their customer. Of course, the means of meeting core expectations may be sufficiently predictable that it can be achieved through an algorithm, usually in the form of a service script. Nonetheless, a key variable that may be tuned for greater effect is the server's behaviour. This is a form of service that anticipates a customer's needs before they are even expressed.

I highlighted the dimensions of the Ritz-Carlton 'anticipatory service' model in Table 8.1. Four of these dimensions relate to modes of personal behaviour, and their problem finding, innovation and action-biased orientation bear close resemblance to the dimensions of design thinking and improvisation. My additional analysis of the Service Values (shown in Table 8.2) identified how they deliberately address the increase and reduction of different forms of variety, in line with Manzini's description of a service 'action platform'. Therefore, it seems reasonable that these characteristics should contextualise the design criteria for any 'action platform' that sought to enable the improvisational design of innovative customer service behaviours.

However, I also identified reflexivity as one of the characteristics that were common to both design thinking and improvisation. This is also an important enabler of personal authenticity for the service worker, so how might autonomy be encouraged *systematically*?

The term *systematic* might seem to be at odds with spontaneous and customised delightfulness; hence the usefulness of the innovation 'action platform' concept that I propose. Given that any such 'action platform' must function in real-time at the interface of the employee and customer, further exploration is required; and in the next chapter I develop this proposition.

Chapter 9 Towards an 'Action Platform' for Customer Service Innovation

9.1 Introduction

In the case studies that I presented in the previous three chapters, I provided an analysis of design thinking process models and the processes of improvisation, which revealed that these fields shared a number of important features. I also further developed my conceptualisation of customer service and examined the 'anticipatory service' model of the Ritz-Carlton hotel company. I analysed this model using the lens of Manzini's 'action platform' concept in order to determine the intention of its component parts. These analyses identified a number of characteristics that inform the development of an 'action platform' that may support innovative customer service behaviours. In the first part of this chapter, I explore in more detail what this 'action platform' may look like.

In the second part of this chapter I will demonstrate the possible application of this 'action platform' through a specific example that is drawn from the customer service industry. The example is that of a branded café chain that operates in Australia. Professional ethnographic research conducted for this brand during 2013 identified a range of underlying customer 'need states'. These 'need states' are the manifestation of each customer's eco-system.[1] In order to demonstrate how an 'action platform' might be designed in response to these 'need state' scenarios, I present a range of artefacts that illustrate how processes from design thinking and improvisation might be combined to support the just-in-time production of original and useful customer service behaviours. My proposition is a synthesis of the theoretical framework that I exposed in Chapters 2, 3 and 4, and the empirical evidence that I produced in Chapters 6, 7 and 8.

I recognise that there are now numerous design thinking 'toolkits' in circulation (Sanders and Stappers 2014), with the *HCD Toolkit* being but one example. Rather than a 'toolkit' intended for design thinking in general, what I propose is an 'action platform' that is designed for supporting innovation within a specific service eco-system. My goal is to demonstrate how the processes that I have shown to operate at the intersection of improvisation and design might deliver new forms of design thinking in a localised response

[1] These eco-systems are as theorised by Vargo and Lusch (2004) and Grönroos and Gummerus (2014) in their respective service logic frameworks.

to common but complex innovation challenges. This approach reflects Manzini's (2015, 3) definition of 'diffuse' (rather than 'expert') design and his broader concept of the 'action platform' that supports, "opportunities for action and interpretation" (2011, 3).

9.2 Revealing the intersection of improvisation and design thinking

In Chapters 2 and 4, I analysed the key theories from design, design thinking and improvisation. I found that design (and design thinking in particular) lacked unifying definitions (Kimbell 2011, Galle 2017). The contemporary design thinking field remains under-theorised (Kimbell 2011, Johansson-Skoldberg *et al* 2013, Schmiedgen *et al* 2015) but a number of distinct design thinking discourses are clearly identifiable in the literature (Kimbell 2011, Johansson-Skoldberg *et al* 2013) with a particular management-oriented design thinking discourse being dominant. Within this latter design discourse Kelley (2001, 2005) and Brown (2008, 2009) argue strongly for IDEO's ways of working (these being associated with the Stanford *d.school*) and Martin (2009) argues for the more general application of design thinking to indeterminate organisational problems (which is not unexpected given his affiliation with the Rotman School of Management).

This management-oriented discourse is also reinforced by the arguments for 'expanded concepts' of design and design thinking, and the systematic application of these approaches to 'creation or making of meaning' (Krippendorf 2006, Kimbell 2011, Johansson-Skoldberg *et al* 2013, Galle 2016). This conceptualisation has been extended by theorists such as Kimbell (2011), Kimbell and Blomberg (2017) and Manzini (2011, 2015) to design *for* the 'socio-material' configuration that is the moment of service interaction. Manzini's concept of the 'action platform' provides a model for the delivery of this design orientation but he appears to remain silent on those aspects of the 'action platform' that - rather than obliging certain modes of behaviour - might act to liberate those delivering service by enabling them to respond spontaneously to the situated complexity of that human-to-human interaction.

This spontaneity appears to require local improvisation on behalf of those actors entrusted with the completion of the design *for* service, but Manzini does not elaborate on the detail of these improvisational processes. I explained in Chapters 2, 3 and 6 that designers collaborate and improvise in response to emergent conditions (Gregory 2003, Rylander 2009, Dalsgaard 2014) – and so do design thinkers (Gerber 2007, 2008, Locke 2013, Sirkin and Ju 2015, Sirkin et al 2016a, Sirkin et al 2016b). However, the underlying processes of improvisation remain largely unexplored in the design literature.

In Chapters 6 and 7 I presented case studies that analysed the practices of design thinking and improvisation in order to identify the core processes of each. I revealed that the process models for design thinking and improvisation have a number of significant similarities. The analysis of these similarities is now presented in Table 9.1, and I propose that the intersection of the two fields constitutes a domain of *designerly* improvisation.

Table 9.1 The shared features of design thinking and improvisation

Design Thinking	Improvisation	
	Theory	**Practice**
Process framework		
Divergent and convergent thinking	X	X
• Problem identification	X	X
• Problem exploration	X	X
• Problem reframing	X	X
• Problem solving	X	X
Collaboration		
User input	X	
Power neutrality	X	X
Improvisation	X	X
Creativity	X	
Prototyping		
Action-orientation	X	X
Improvisation	X	X
Experimentation	X	X
Iteration		X
Making ideas tangible		X
Reflexivity		
Empathy	X	X
Praxis	X	X
Reframing		X

In summary, improvisation is a creative and collaborative practice that generates experimental behaviours within a lightly constraining and power-neutral environment. My analysis of the evidence, drawn from the two bodies of theory and the empirical data produced in the case studies, indicates a high degree of similarity in the structure and processes of design thinking and improvisation (please see section 4.2 for my summary of the definitions that were established in my review of improvisation theory).

Manzini defined an ‘action platform’ as an interactive system that supports a variety of interactions - and that, “does so by fixing use modes, making certain kinds of behaviour more difficult and others more probable while leaving opportunities for action and

interpretation open" (2011, 3). He emphasised that decisions about what might be 'fixed' and what might be 'left free' within each platform could only be framed by its local circumstances and that these could not be planned for in advance. Consequently, I now argue that a form of improvisational design is necessary to deliver the functions of an 'action platform' that respond to situated variety, and that this form of design *for* services foresees the increasing need for design to accommodate social complexity. This complexity is often driven by the personal (but not always conscious) purposes of human beings as they operate as parts of social (Ackoff 1994) or socio-technical (Johnson 2010) systems.

I shall return to an analysis of the more general relationship between complexity and design later, but in the next section I confirm how design *for* services might respond to the particular complexities of a customer service system – and the specific role that improvisation and design might play therein.

9.3 Applying improvisational design to services

In the previous chapter, I demonstrated that planning for the consistent delivery of innovative customer service represents a form of 'wicked problem' (Churchman, 1967) in that it is grounded in social interaction and is highly complex. This complexity is due to two distinct factors.

The first factor is that bespoke customer service requires a response to the situated details of each customer service interaction. The exact details of each scenario cannot be known in advance, and are beyond the reach of typical management planning. The second factor is that the customer's perceptions of the value created in each of these interaction is subject to the effects of Helson's Adaptation Level theory (1964), in that what was initially beyond expectation (and delightful) quickly becomes absorbed into core expectations (and ceases to create additional value). As core customer expectations continue to grow, a means of sustainable innovation is needed to create a new repertoire of useful and original responses to customer needs.

Kimbell (2011a), Manzini (2011), and Meroni and Sangiorgi (2011) theorised that the appropriate response by designers was to design *for* services by creating processes and environments that would increase the likelihood of a positive response to a particular interaction. Although the precise details of each interaction might be unforeseeable, designers might still conceptualise this problem enough to account for the social and material environment in which the interaction takes place. Normann (1991, 21) argued that the actual moment of interaction *is* the service, as this constitutes the moment of

economic exchange. Kimbell thus wrote of value relations being "*instantiated* by actors within a service context" (2011b, 45). The firm may have performed numerous activities and aligned multiple resources in anticipation of the service interaction, and the customer may go on to reallocate those resources and capabilities in their situated path to value creation – but the potential for value creation is only realised through the instant of service interaction that Normann termed the 'moment of truth' (1991, 21).

Normann went on to argue that, "any enquiry into quality must start from the micro situation of the client interaction" (1991, 201). Kimbell reflects this paradigm in her recognition of design *for* services as a form of design *enquiry* rather than a means of production. This focussing of the designer's efforts on the enquiry within the *problem space* (the first phase of divergent and convergent thinking in the *Double Diamond* process model examined in Chapter 6) is a sign that the designer cannot fully foresee the situated details that inform the resulting *solution space* (the second phase of divergent and convergent thinking represented in the *Double Diamond* model). This second phase must be delayed and entrusted to the actor who is appropriately situated (to reflect those local details).

This suggests the benefit of a problem-*finding* mindset being adopted early in a customer service encounter in order to grasp a given situated problem. Although the macro level goal of designing in advance for every situated problems constitutes a form of 'wicked problem', at the *micro* level the problem is far less complex – but not quite straightforward. This is particularly true for forms of *anticipatory* service, which offer a response to a customer need before the customer explicitly articulates it. How might design support the level of employee sensitivity and responsiveness that this approach requires?

Although I acknowledge the difficulty of responding to emergent customer service problems (the exact details of which cannot be planned for in advance), a range of archetypal *customer need scenarios* may permit some pre-planning. These scenarios are not too dissimilar to how designers might research to determine customer needs well in advance of any specific actualised instance requiring the corresponding product or service, and this is typical of many product design projects (although as explained in the previous chapter a product may be stored in anticipation of that need). The relevance of these archetypal human needs has been proven in the recurring calls by design thinkers to locate the fundamental or underlying problem that provides the basis for meaningful innovation (Brown 2009, 49 & 56). It is also implied by Brown's assertion that we should design for *infinitive verbs* rather than *nouns* (ibid, 134), and the presenters of the Stanford online module made the same recommendation at the start of the *Define* phase of their design thinking process.

For instance, a design thinker is directed to design for the transcendent need *to sit* rather than to design a chair. Similarly, a design might respond to the need *to travel* rather than focussing solely on the solution of a bicycle. Technological progress may make specific design solutions obsolete but the underlying need remains. Additionally, habituation to prevailing design configurations may obscure innovative solutions that more aptly respond to an underlying need state. An example here would be the addition of wheels to suitcases. This did not require a technological breakthrough, merely a reframing of the fundamental problem as being *to transport belongings with ease* rather than understanding the suitcase as an end state of a specific design path (Fukusawa and Morrison 2008, 5).

In addition to the design-oriented mindset that *finds* the customer service problem, I have shown that capabilities for spontaneity and creativity are required to respond to the emergent scenario (Normann 1991, 21; Pine and Gilmore 1999, 104-105). This spontaneity and creativity are recognised as improvisation. I have also shown that improvisation already provides an important resource for designers (and design thinkers in particular), although its processes remain largely unexamined in the design literature. In my interview with Glenn Hall, he claimed that the methods that underpin the improvisational process are accessible and that the population at large may competently replicate these methods. In foreseeing the increased access to such new forms of *designerly* methods, Manzini anticipates the *democratisation* of design and argues for the resulting need for expanding the design concept.

He writes of an era of *Design When Everyone Designs* (2015) and claims that modern societies exist as living laboratories that are suspended in a perpetual state of experimentation. In his model, expert and non-expert designers collaborate across space and time in pursuit of shared objectives (ibid, 5). These are the informal collaborative networks observed by Mortati and they are rich in knowledge whilst operating outside of the traditional forms of social control (2013, 18-19). An important realisation that can be drawn from this evidence is that these models of collaborative design are emergent and their participating populations are probably much larger than the membership of professional design institutions.

In the absence of organising ‘expert’ design institutions, informal collaborative relationships - that are low in formal power and control - seem most common in this community of ‘diffuse’ design. This movement’s dispersed power and its informal application of imagination and experimental action further suggests the usefulness (for

management-oriented design thinkers) of exploring seemingly other (explicitly non-design) human forms of creativity such as improvisation as a process model for delivering new forms of collaborative design. We have already seen the manifestation of this type of 'diffuse' design in the case study of the Ritz-Carlton hotel company, which I shall now briefly revisit.

Earlier in the previous chapter, I conducted an analysis of the Ritz-Carlton brand's anticipatory service model. This revealed several dimensions that drive useful variety, being thus: problem finding, innovation, improvisation, empowerment, taking action and a relational orientation. When I compared these dimensions to those dimensions shared by design thinking and improvisation, another close resemblance was revealed. Therefore, I proposed these characteristics as a guiding framework for enabling improvised design thinking. The question remains though, how might we *systematically* deliver this approach? As the Ritz-Carlton brand operates in the luxury hotel segment, it may be that its premium pricing and luxurious surroundings might primarily enable their enhanced level of service. How might the improvisational design of innovative customer service behaviours be supported in more typical consumer environments?

One way to achieve this may be to bring Manzini's 'action platform' into play by combining problem-finding and an improvisational orientation (both being revealed in my analysis of the Ritz-Carlton anticipatory service model) to produce an 'action platform' that is not only generalisable to the customer services industry but is also sustainable at the economy end of that sector. My proposal will begin with a summary of those arguments that relate to the processes of problem recognition, which remains the focus for the remainder of this chapter.

9.4 Enabling problem recognition via customer personas – finding the problem

The two main types of problem handling behaviour are problem-finding and problem-solving. I explained in Chapters 1 and 2 that there is significant evidence that the 'end' of the problem-finding phase and the 'start' of the problem-solving phase may intersect – so that a meaningful formulation of the problem and ideas for its solution arise simultaneously (Duggan 2007, 23). Goldschmidt's (2016) research suggested that divergent and convergent thinking can occur concurrently, and Dorst (2009, 285-287) claimed that a designer's propensity for experiencing these moments of intuitive expertise increases with experience. Consequently, the final aspect of a problem-finding phase may

also require an element of (speculative) abductive thinking, in order to explore the options that *could* be available as a function of the problem's formulation. This aspect of problem-finding requires a level of opportunism; in that it might require noticing those moments of 'friction' that one has been conditioned to accept as the societal norm or technological limit. In the context of industrial innovation these moments of 'friction' are unlikely to be revealed by traditional market research methods (as the respondents may have grown accustomed to any minor inconveniences and may no longer consciously register them). Anticipatory service that is unrequested and unexpected requires this type of opportunistic problem-finding behaviour. So, how might service workers be cued to find these unarticulated problems and then be willing to innovate to solve them?

Service design (as opposed to design *for* services) provides a range of methods and tools that can be employed to research and improve service quality. One of the key tools is that of the customer persona, which encapsulates the most important goals and needs of a particular customer group. Often these personas incorporate visual imagery to support empathy during the service design process. In providing a focused but human-centred representation of the problems that a customer wishes to solve, this type of compellingly designed material seems likely to engender a problem-finding mindset. Societal archetypes provide a particularly provocative type of content that might be employed in these customer personas. Before explaining the specific application of these archetypes to this project, I shall quickly provide some useful background context.

There is significant evidence of this method being employed in the development of the user personas found in interaction design. This is particularly apparent in the various facets of a customer's reality being combined into a unifying persona that can then provide the basis for an effective design response (Grudin and Pruitt 2002, Idoughi, Seffah, and Kolski 2012, West and Di Nardo 2016, Graffam 2010). Cooper's seminal work in this field explained these personas to be hypothetical representations of archetypal users and their goals (Cooper 2004, 124&128). These human end-goals remain stable over the long-term (and as explained earlier in this chapter) usually transcend any immediate means for technological resolution. This transcendent quality allows these needs to be amalgamated into meaningful personas that help maintain the designers' focus on the problems being experience by the user. The persona is effectively a visual representation of important aspects of the design problem's definition. Using a human-centred design process to converge on a persona (and the problems therein) encourages a collaborative and divergent response to determining possible solutions.

Cooper specified the key to his process of goal directed design (which underpinned the UX movement) as follows "[d]evelop a precise description of our user and what he [sic] wishes to accomplish" (2004, 123). To do this any designer must accurately establish the relevant goals of the user and the importance of those goals within the users personal hierarchy of things that they wish to achieve. This interdependence between the user's personal motives and the mode of interaction closely aligns with Ackoff's (1994) definition of a social system, in that their interaction as part of the system is only useful if it creates synergy (in the form of a solution to their problem) that they could not otherwise create. It is also clear that the designer's convergence on a specific persona (as a distillation of archetypal user needs) creates a special constraint that enables an original and useful design solution (2004, 132-133).

I argue that this transition from the expression of user need to a creative response to that expression closely resembles the linkage created by the 'offer' in the improvisational framework (Berk and Trieber 2009). As the key improvisational process, the 'offer' must be accepted and this requires divergent thinking to generate options for a response. However, once a selection from these options is made and a new 'offer' is presented, this actually forms a point of convergence. It is important to emphasise that the nexus of convergent and divergent thinking is quite clear in explanations and depictions of design thinking process models. However, its role as a crucial point of inflection and the transition from problem definition to problem solving invites more exploration. This is particularly so as this process nexus may serve as the connection point for collaboration (in which one actor defines a problem for another actor then to solve). This was shown as being the case in the examination of the improvisational 'offer' in Chapter 7, and the point identified by Glenn Hall as being at risk of *disconnect* because people "stop listening to each other's ideas" and are no longer "changed by what is said to them" (Glenn Hall, unpublished interview, February 4 2015, 31:52). Consequently, it appears to be a worthy focal point for design research.

It is important to remember that Cooper's work was in software design and that the resulting interactions were uniformly delivered via stable computer code, and a user might be employing the software to meet a very fixed and unchanging goal. However, in a 'live' customer service environment the interaction is human-to-human and a customer might adopt a number of different need states. For instance, during a stay at a hotel a single customer might experience a range of different needs. Nevertheless, by combining archetypal user needs and presenting them as a form of improvisational 'offer', it seems

credible that a workplace 'action platform' might effectively communicate the key aspects of the user's problem and invite an employee to improvise a response. It also does not seem that there is any reason why this method might be costly to sustain, as it simply relies on a shift in human behaviour and - although this can be difficult to engender - it need have no inherent cost. Of course, it also relies upon the correct determination of the customer persona in the first place and for the approach to be reliably invoked by the service worker in the spirit of improvisation. Before exploring this invocation to improvise in the next chapter, I present some specific examples of customer need states that can be used as 'offers' for improvisational action.

9.4.1 An analysis of customer need states

As I have just established, the user (or customer) persona is a prominent service design tool that is used to support the analysis of customer needs. The process required for its construction requires an empathic observation of user attitudes and behaviours in order to identify the underlying user needs. In its finished form the persona becomes an encapsulation of what the user is (knowingly or unknowingly) motivated to achieve through an interaction with a service system. In effect, constructing a persona is a means of defining the problems that the customer is trying to solve, and revealing the reciprocal problem of the resulting design challenge (of providing a solution). A well-researched persona explicitly represents (in a visual format) the human needs that underlie a particular service design problem. It may then be used to preserve and communicate this design problem to other project members and stakeholders (designer and 'non-designers') who are involved in developing solutions.

In identifying a prevailing customer problem (or set of problems) rather than any particular customer, the persona acts as an archetypal representation of a particular customer *type*. Although this personification of a customer is fictional the motivations that it represents are real. In their influential text *This is Service Design Thinking,* Stickdorn and Schneider explain that:

> *Personas are fictional profiles, often developed as a way of representing a particular group based on their shared interests. They represent a "character" with which client and design teams can engage.*
>
> (Stickdorn and Schneider 2010, 178)

As they represent a category of customer need rather than any particular customer demographic, these personas may also illustrate how the same person might appear for service in different need states. For instance, people with very different demographic profiles may at times share very similar need states (such as searching for a parking space at a large shopping mall). Conversely, a single person may at different times experience very different need states – such as hurriedly shopping for a basic product one day and deliberately spending time to search for a special gift the next. Consequently, rather than relying on any superficial demographic indicators, the customer's disposition might need to be determined by a store employee through an act of empathic engagement – as part of cultivating a service relationship.

This is particularly relevant in light of the arguments (that I presented in Chapter 2) for a human – rather than 'user' – centred approach to design. Krippendorf highlighted the opportunity to design new "processes of human involvement" (2004a, 47), which reflect the central role of personal meaning, and argued that the aggregating concept of the 'user' was actually too simple to be the basis for effective design. More recently, Kelly and Matthew (2014) claimed that the designer must now 'displace use' in favour of a more relationship-oriented approach. They introduced the concept of a state of 'pre-use' that reflects the potentialities that might be realised when a human and an artefact interact. Applying this concept requires a designer to reveal the latent needs of a human consumer, and to remain open to the eventual contribution of the human 'co-creator' that they foresee. Kimbell and Blomberg (2017), Sangiorgi, Patrício, and Fisk (2017) and Sangiorgi and Prendiville (2017, 254) all recognise the need for this new form of 'design in use', in which the user co-creates to construct the potential of a designed artefact (Ehn 2008, Bjögvinsson, Ehn, and Hillgren 2012).

Stickdorn and Schneider argue that, "the key to a successful persona is how engaging it proves to be" and that both visual representation and detailed written profiles might be used as methods to "bring these characters to life" (ibid, 178). These user personas can directly establish the concept of an underlying customer need state, and provide an easily understandable expression of an archetypal physical or emotional need – such as 'to be left alone' or 'to be helped'. Suggestions for a means of responding to those needs are deliberately omitted from a persona, and so (within the relevant organisational framework) an effectively unlimited choice of solutions remains available to the responding servers.

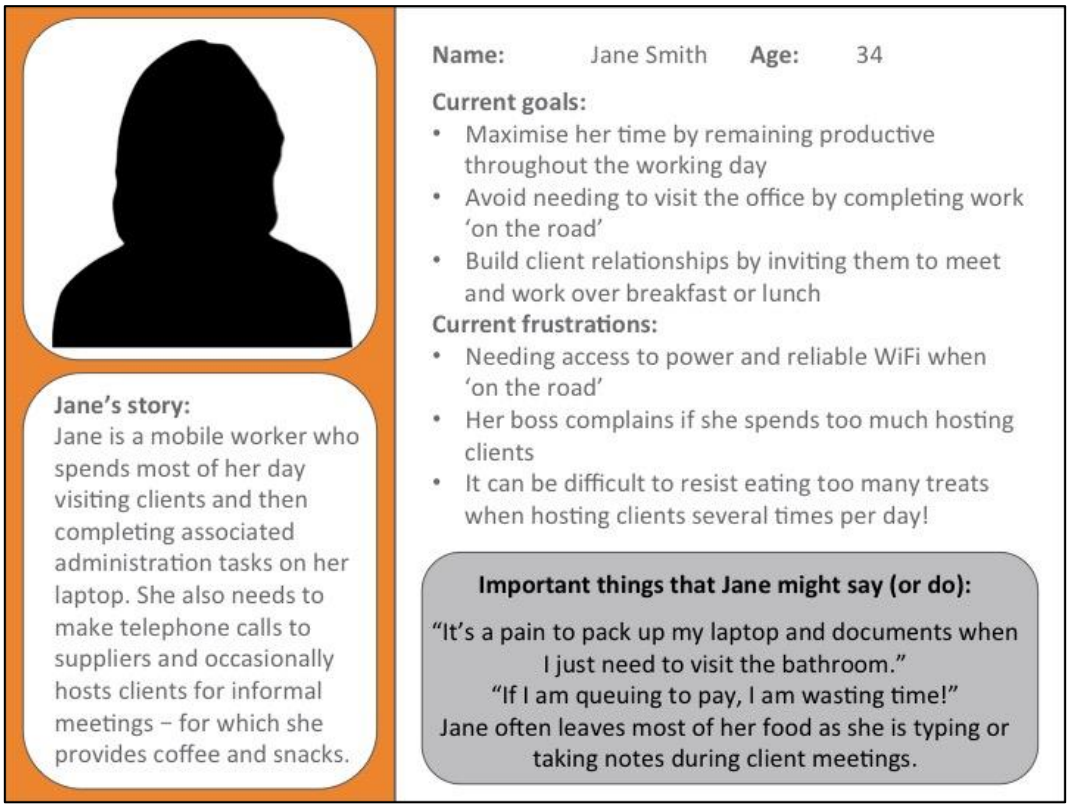


Figure 9.1 A user persona for Jane Smith (a mobile worker) © Author's own

Of course, it must be remembered that a fully developed persona (see Figure 9.1) may contain numerous elements and substantial amounts of detailed text. These personas are tools for the design studio, which affords the luxury of long periods of designerly reflection. I am proposing that an artefact such as this should be designed for communicating the essence of a design opportunity *at a glance* as this most closely mirrors customer service as it happens 'live' at the interface of employees and expectant customers. How might this *at a glance* persona be designed? How can a usually comprehensively descriptive persona be used in a fast moving service context?

I propose that a carefully designed 'micro persona' might be sufficient for the navigation of the archetypal customer service scenarios. As Fulton Suri argued, "unexceptional incidents looked at from an inquisitive stance can inspire design opportunities" (2005, 165). These comments have a significant relevance to my research, particularly in regard to seeking "patterns that point to more universal need" (ibid, 165). What if these patterns could be communicated through an artefact that anticipated the need to expedite the transmission of only the most relevant details? If this configuration also made use of basic techniques to assist memorisation and recall (such as mnemonics), then recognition of an archetypal need state might be close on instantaneous. If this method provided

sufficient clarity, this might even be the case for even very new members of a customer service team.

These sorts of personas may be developed speculatively, based on a series of informal observations and may involve experienced members of the customer service teams who are experts in the 'live' environment. However, design ethnography that includes detailed observations (by professional ethnographers) of actual customer behaviour can also be employed in order to establish more nuanced and subtle customer need states that may exist within a specific service environment. In my career prior to this PhD research, I was closely involved in a project for a prominent hospitality firm that involved over eighty hours of close observation across a representative sample of branded cafes - and this revealed sixteen distinct need states. Evidence for the existence of each of the need states was provided through the compilation of photographs, quotations from relevant customers, and a narrative overview provided by the ethnographic team. The definition for each need state is contained in Table 9.2.

Table 9.2 List of customer need states and their definitions

	Need state	Definition
1	Working session	A solo mobile worker or a small group of the same. They require desk space, WiFi, power for electronic devices and products that can be consumed whilst working – such as sharing plates of easy to handle finger-food. Refills and supplementary serves may be welcomed, with a 'tab' being maintained and paid at the end of the working session.
2	Quiet Time	Undisturbed time alone and away from family, work or friends.
3	Social Contact	The primary reason for a visit is to interact, even indirectly and fleetingly, with recognisable team members – or other regular customers. The customer dwell time might be high in relationship to their expenditure.
4	On the Road	Calling in between point A and B for a time sensitive 'fuel stop'.
5	Passing By	A visit driven by a coincidental proximity during a primary journey.
6	Daily Ritual	A recurring habit, based around consumption of a favourite drink or snack – perhaps also meeting local friends. This might be done on the same day and / or at the same time.
7	Killing Time	Using the café as an ancillary space whilst waiting for a subsequent event. Customer dwell time might be high in relationship to their expenditure.
8	Change of Scene	Usually home workers, or makers, who wish to break the perceived monotony of their domestic circumstances.

	Need state	Definition
9	Meeting Friends	Seeking a neutral, safe space for meeting multiple friends – whilst also seeking an affordable choice of food and drink.
10	Taking a Break	A short period of time away from a longer session of work or study, which is due to resume.
11	For the Food	Customers who are genuine fans of the house brand of coffee or particular promoted products such as indulgent drinks or elaborate desserts.
12	Focused Conversation	Usually two customers, who may be friends or colleagues, who engage in intense and unbroken conversation, valuing privacy and avoiding interruptions that 'break the spell' of their intimate rapport.
13	Good for the Kids	Either a sole parent or a couple who wish to let their children roam the café space and / or participate in activities, such as colouring or reading, that do not require close supervision. Effectively the parents and the children are located in the same approximate space, whilst engaged in different pursuits. The informality and durability of the café boundaries puts the parents and children at ease.
14	Extended Family	Several, small groups from within the same family. This is often an intergenerational occasion, and the opportunity to join and leave the larger group is valued, being supported by rolling product orders – and the opportunity to pay for your own share, rather than feeling obligated to pay for those not immediately related e.g. own partner and children.
15	Family Time	Often a pair of parents with two or three children, which may range in age from infants to teens. An appropriately wide choice of affordable products (including those which may constitute treats) creates value,. The group may dine and chat at a leisurely pace, not wishing to feel hurried – or pressured to move along.
16	Sense of Belonging	Regular and frequent visitors, who maintain 'by name' relationships with the café team and other customers.

These sixteen need states are genuine instances of consumer problems that customers are either knowingly or unknowingly seeking to solve. In finding ways to address these problems more effectively and efficiently than its competitors a firm creates its value proposition, which is the heart of its business model (Osterwalder and Pigneur 2010, 22-25; Lafley and Martin 2013, 15). Converging on these closely defined problems, and presenting them in a way that invokes problem-finding behaviour in its service teams constitutes (in the analogy of improvisational practice) the designed 'offer' of the firm. It is the response to these 'offers' that must then be made tangible through divergent improvised behaviours that actually respond to the underlying customer need. As I explained in the preceding chapter, for service behaviours to remain delightful they must

frequently be redesigned and tested with customers. To enable this variety, the 'offer' must be intended as the type of design constraint that demands a creative response. This form of special constraint requires a response to its specific criteria but is also open to a wide range of personal interpretations of how the problem might be framed (Rowe 1987, 79; Duggan 2007, 152; Brown 2009, 17-25).

I have now examined how customer personas represent a convergence on a particular cluster of problems that a specific type of customer may face. If the firm were to carefully design these personas and to familiarise their service teams with them, this might support more immediate recognition of the underlying need state. Presumably, if the design of the persona deliberately distilled the critical pieces of information that needed to be communicated, and presented them in a way in which they could be very quickly understood, this would further improve the speed of problem recognition. Consequently, the firm needs an elegant means of communicating its objectives to its teams of employees without relying on the usual prescriptive methods and without anchoring its employees to any specific solutions.

I argue that the design of 'micro personas' provides such a means, and that this concept may serve as a suitable form of 'vehicular language'[2]. The 'micro personas' that I demonstrate in the next section also form part of the designerly 'object language' identified by Cross (1982) and act as the types of 'boundary objects' (that support the transformation and transfer of knowledge between actors) that were conceptualised by Carlile (2002).

9.4.2 Accelerating problem recognition through the use of 'micro personas'

The application of improvised design thinking to customer services may begin with a carefully designed 'offer' that the firm is able to develop without the pressure of a time constraint. In the absence of a time constraint, the firm might first conduct extensive customer research (such as highly detailed ethnography) to correctly define user needs. It might then design a means to express these user needs in a format that supports an effective high-speed response. We see parallels in other industrial environments where an organisation anticipates that a human being may need to respond to a complex problem in a very short timeframe: for example, the use of very concise emergency checklists in medicine and aviation are such examples, and where great care is taken in the human-centred design of such artefacts (Gawande 2009, 136-140, Degani and Wiener 1991). Of course, in pure improvisation the initial offer may be completely spontaneous but I am

[2] One that makes communication possible between two groups that do not share a common language.

arguing for the application of 'improvisational design' (rather than pure improvisation). Also, the stakes in customer service are not as high as in emergency medicine or commercial aviation. Accordingly there is the opportunity for a more creative and experimental response to a carefully pre-designed 'offer', which aligns with the requirements of an 'action platform' for innovative customer service behaviours.

I envisage that new employees might be provided with evocative induction materials that communicate in some detail the dominant, and recurring, customer need states for the service environment – but that these states then be represented visually through the use of cartoon avatars, which are designed to depict each need state and named to support recall. Several examples that I made using the WeeMee Avatar Creator[3] are set out below, and these are built on the sixteen customer need states that I presented earlier. The first (shown in Figure 9.2) is a depiction of the fictional character Wendy Smith. This character is the personification of the Working Session customer need state, which is the twelfth need state in Table 9.2. This need state was also represented in the persona of Jane Smith presented in Figure 9.1.

A comparison of Figure 9.1 (the persona) and Figure 9.2 (the 'micro persona') reveals that much of the detail of the former has been condensed into the latter. The attire, spectacles and laptop in the 'micro persona' suggest someone who is a non-manual worker, and the mnemonic contained in the name (the initials being the same as the matching need state) confirm the identity and aid recall of the relevant need state.

Figure 9.2 Working Session represented by Wendy Smith

[3] To find out more about this application and the associated online environment, please visit: http://www.weeworld.com/blog/?tag=weemee%20avatar%20creator

It will be useful to point out here that the understanding of an image does not simply spring from its apparent photorealism, and this point is critical in grasping the potential role of imagery as a form of communication. Gombrich's analysis of a Pompeiian mosaic (that included the caption *Cave Canem* - beware of the dog) convincingly indicates that even a quite sophisticated image still requires the caption to make full sense and avoid misinterpretation. He argues that the interpretation of an image "all depends on our prior knowledge of possibilities" (1982, 138-140). The contribution that the reader makes is based on the stock of images held in their own mind. Gombrich termed this "the beholder's share" and argues that an accurate reading of an image is governed by three variables: the code, the caption and the context. He conclusion was that "no image tells its own story" (ibid, 142).

Interpretation occurs in the mind of the producer when composing an image that will effectively transmit their intention, and in the mind of the consumer when identifying the various components of the image through reference to their own cultural experience. The more easily that any cultural coding can be separated from the content of the image, the more reliable it is in transmitting a specific message. Consequently, a deliberate selection of coded elements proves more effective than a full replication of a subject, as without context this may still remain entirely ambiguous to the reader. As Gombrich argued, a caption brings further focus to the overall message and reduces the likelihood of misinterpretation. The reader may still require a key to decode the image, but is more likely to figure it out correctly (ibid, 281-283). In fact, the process of decoding the image to reveal the meaning proves more compelling and supports greater understanding than explicit text. In his analysis of the cultural coding of actual photographs Barthes identified their role as ideograms, that came as a function of being man made artefacts that were thus imbued with cultural or intellectual significance. He also claimed that the intellectual resolution of what is being signified proves psychically compelling and that, "man likes signs, and likes them clear" (1977, 29). These points must be kept in mind in relation to the benefits of creativity and playfulness that I shall return to in the next chapter.

In assessing the design and content of these illustrative 'micro personas' it is also important to note that although these personas contain images of particular characters they are intended to communicate the need state – as embodied in each avatar – rather than any demographic details. This is why the names of the characters are intended to support an immediate link to the corresponding need state (the human state of 'pre-use' rather than the 'user') through the use of matching initials and other mnemonic cues.

For instance, Figure 9.3 expresses the need state of Quiet Time (the desire for undisturbed time alone and away from family, work or friends). Quiet Time is the first item that appears in Table 9.2. Two versions are provided in order to prevent simplistic association with the appearance of the character. Both Quentin Thomas and Quincy Todd, whose initials have been selected to prompt easy recall of the relevant need state, are intended to represent all customers seeking quiet time, in all physical manifestations and at all times. Simply seeking out a bald, white man who wears glasses would not be the correct approach. Of course, for complete beginners it may be sufficient to scan the café environment for people who are concentrating on reading a book or absorbed in listening to their MP3 player. Employees with more advanced, detection skills might seek more nuanced clues to detect a customer who was in the Quiet Time need state. Some of these states will be easier to spot than others, as not all necessitate a distinct outward expression – or are made clear through artefacts, like laptops or books.

Figure 9.3 Quiet Time represented by Quentin Thomas and Quincy Taylor

A higher degree of empathy might be required to detect more subtle need states. For instance, a new customer presenting with the need state of Social Contact might not be immediately obvious. However, noticing that this person has repeatedly visited on their own and not adopted alternate need states (such as Quiet Time) would be a clue to their goals.

As I have mentioned, there is little downside to assuming that this social dynamic exists and making the effort to engage the customer in some polite conversation. This experimental behaviour is a form of 'cultural probe' (Sanders and Stappers 2014, 9) that is intended to test a design hypothesis, in this case that a customer is seeking social contact. Equally, a

customer who is driven by the need for a Change of Scene might be receptive to conversation, but the opening question might be similar to, “What have you been up to today?” If the customer chooses to elaborate, then an accurate diagnosis of their underlying goal(s) might be made. This subtlety is why it is intended that regular and intensifying modes of playful practice be used to support the development of this type of intuitive capacity (Syed 2010, 31-53). This aspect will also be explored in the next chapter. The various other examples of this ‘micro persona’ concept are presented in Figure 9.4, and each may be cross-referenced to the matching need state description in Table 9.2.

Figure 9.4 Examples of 'micro personas' for customer need states 2-13

9.5 Conclusion

In this chapter I have summarised the theoretical arguments for the need for improvisation in design *for* service, and the similarities between design thinking and improvisation. I also presented the findings from my comparative analysis of design thinking and improvisation practices, and then summarised that empirical evidence in Table 9.1. I have thus demonstrated that design thinking and improvisation share a number of important characteristics relating to their structure and key processes (particularly their reliance on a guiding process framework, collaboration, prototyping and reflexivity). I then demonstrated how a customer's underlying needs represent a form of design problem – and that this problem must be crisply defined before potential solutions are sought. In the case where the firm uses dispersed knowledge to inform the definition of a problem and entrusts the exploration of possible solutions to its front-line teams, this transition from convergence (on the problem) to divergence (in the generation of solutions) might be made more effective through new methods of communication that support collaboration.

In addition, I have grounded my proposition for an innovation 'action platform' in a range of specific customer 'need states' that were identified as existing on a recurring and enduring basis within a popular café brand. I argue that by identifying these ambient needs (that are *ever present*) and effectively communicating them to new customer service employees, these employees might maintain a consistently heightened awareness of these particular needs – and recognise them almost instantly. This instant recognition may appear to the customer to be as if their personal need has been anticipated, when in fact it is recognition of the archetypal pattern.

I then proposed the concept of the 'micro persona' as a potential method that builds on several established service design practices (such as the user persona) to express an archetypal need state that has been confirmed through careful research. The human-centred design of these 'micro personas' supports the improvisational responsiveness that is implied in Manzini's concept of the 'action platform'. It does this by enabling high-speed recognition of a recurring customer problem, but this recognition must also be accurate. I explained earlier in this chapter that these 'micro personas' personify customer needs rather than demographics and that it is critical that employees understand that they must see past factors like age, gender and attire in order to recognise the underlying need state – and then respond creatively. How might any 'action platform' intentionally support this accurate detection of need?

Furthermore, following the high-speed recognition of a customer need state, any response to that situated need must also be prompt if it is to qualify as anticipatory service. How might this be achieved? In the next chapter I shall explore potential methods for enabling a brisk and effective response to these types of improvisational 'offers', as well as examining how reflexivity might be supported at the juncture of convergent thinking (by the firm) and divergent thinking (by the employee). As one of the key factors shared by design thinking and improvisation, this reflexivity is important in ensuring that the service worker fully engages with the search for a customer's need state, firstly to ensure an accurate diagnosis and secondly to improvise an appropriate response.

I then demonstrate how these inter-related insights about *designerly* improvisation; designing *for* services; and an employee's capacity for creativity, might be applied to develop an illustrative 'action platform' concept that supports improvisational design in the customer service workplace. Although my description of this innovation 'action platform' is grounded in a specific industrial case, its principles are generalisable to other customer service environments, as it is based on a theoretical and empirical analysis of the shared features of design thinking and improvisation. My explanation of this concept also moves us towards future research that might develop more fully resolved applications that deliver this effect.

Chapter 10 Design of an 'Action Platform' that Supports Innovative Customer Service Behaviours

10.1 Introduction

In the previous chapter I summarised the findings from my case study examinations of design thinking process models and the practice of improvisation. I also built on my earlier analysis of design theory to develop a conceptualisation of anticipatory customer service and to investigate the mechanics of an innovation 'action platform'.

I then described how my insights might be applied to a specific example from the customer service industry: the ethnographic research from a hospitality firm that had revealed a core range of fundamental customer needs. The identification of these patterns of customer behaviour had enabled this firm to converge on sixteen recurring need states. I concluded the previous chapter with an argument for the effectiveness of a range of designed artefacts that I termed 'micro personas'. These artefacts illustrated how processes from design and improvisation might be combined and applied to support the just-in-time production of original and useful customer service behaviours. In particular these 'micro personas' are intended to accelerate the recognition of archetypal 'need states', that reflect the state of 'pre-use' conceptualised by Kelly and Matthew (2014).

I contend that the intersection of improvisation and design processes that I have identified is a domain of improvisational design, in which one party (in this case the customer service worker) might spontaneously produce an experimental response to the guiding 'offer' of another party (in this case a customer service organisation). My argument is founded on the discernible presence of a scaffolding infrastructure that contains the critical processes of collaboration and prototyping. All three of these features were revealed in my analysis of design thinking and improvisation in theory and practice. However, reflexivity is also necessary to ensure that the application of these processes is discernible as being imbued with a level of design competence.

Having explored 'micro personas' as a means for converging on a latent 'need state', I now explore potential methods for expediting a creative response to these novel types of improvisational 'offers'. I revisit the seemingly paradoxical concept of *emancipating* constraints that may invoke reflexivity at the juncture of convergent thinking (by the firm)

and divergent thinking (by the employee). This reflexivity is important in ensuring that the service worker accurately gauges the customer's need state and then improvises an original but effective response in a way that is discernible as a design competence. Recognising that the attitudes and behaviours of any employee are strongly influenced by the prevailing workplace culture, I highlight several important aspects of organisational culture that frame employee motivation and their freedom to act. These aspects form part of the wider social system in which my proposition for an innovation 'action platform' must operate.

I then describe how these inter-related phenomena might be combined in the development of an illustrative 'action platform' that supports behavioural innovation in the customer service workplace. This takes the form of a speculative system for play. This system combines the 'micro personas' (representing the customer need states on which the firm has already converged) and some specific methods for supporting divergent, creative thinking by the service worker.

10.2 Encouraging innovation at the intersection of improvisation and design

The previous chapter concluded with a demonstration of how the firm might communicate with its employees through the medium of 'micro personas'. Although the firm may have conducted research to accurately identify a range of archetypal customer needs (in the sense that they consistently recur within the service eco-system of the firm), any individual customer who experiences that need for the first time is unlikely to realise that their personal experience is actually part of an archetypal pattern. Consequently, prompt recognition and an innovative response to that customer's situated need may be perceived as anticipatory service, even though it is actually a predictable instance of a discernible pattern of customer needs that has been identified by the firm. In fact, the firm has simply anticipated that there are recurring patterns of need (rather than any personal need in particular) and then effectively communicated those patterns to their employees to enable their prompt recognition and local action. For brevity, I shall refer to the type of local action that responds to a customer need in a way that creates delight as a 'winning' behaviour.

I have already explained that the cultural, social and psychological complexity involved in the provision of innovative customer service presents a 'wicked problem' for management (Churchman 1967). A particular dimension of this problem is the ever-growing expectations of customers, who eventually absorb initially delightful customer service behaviours into their core sphere of personal expectation. Because of this

acclimatising effect, a new repertoire of these 'winning' behaviours (that exceed customer expectations) must be continually generated. Given the availability of social media platforms, descriptions of these behaviours may quite easily be shared amongst separate customer service teams at very low cost and at high speed. When a customer encounters a 'winning' behaviour that is appropriate for their situated need for the first time, they experience this as being novel. However, this may be a creative response that has been shared across the network of teams and, although it is novel to that specific customer, it may not be completely original. Where archetypal (reoccurring) customer needs exist across a service network, the positive effect of innovative behaviours may be achieved without every 'winning' behaviour being original *in itself*.

Nevertheless, customer needs may change over time and customer expectations will continue to grow. Completely new states of need may also emerge. Therefore, the firm must continue to research the emerging needs of its customers and the pool of 'winning' behaviours must continue to be replenished. This requires a method for sustainable innovation, and I argue that an important part of any such method must be a situated front-line employee's capability for creativity. In addition to the capability to respond to a customer need creatively, an employee must also possess the motivation (and have permission) to act. Consequently, the employing firm must also develop some means of engendering their employees' intrinsic motivation, as the firm is reliant on the discretionary efforts of the employee during customer interactions that are locally situated and arise spontaneously. The firm cannot engender the desired thoughts and actions of its employees through traditional methods of supervision (given that a typical employment contract could not oblige personal creativity, and every front-line employee would need to be constantly supervised on a one-to-one basis). Again, as per Ackoff's (1994) recommendation for the optimisation of a social system (and as we have seen the customer service workplace is best conceptualised as a social system), the harmonisation of the system's *environment* must be the main target of management action rather than the human components of the system – which must be self-organising. The overall interactive environment of the social system that is the workplace is effectively *organisational culture*. To develop this conceptualisation of organisational culture, I briefly provide some important definitions from cultural and social theory.

10.2.1 Organisational culture

The influential cultural theorist, Stuart Hall, understood the word 'culture' to refer to "that level at which social groups develop distinct patterns of life, and give expressive form to their social and material life-experience" (Hall and Jefferson 1976, 4). Hall proposed that culture is the means with which those affiliated within these groups process the "raw material of their social and material existence" (ibid). This process constructs the "distinctive 'way of life' of the group or class" (ibid) that is then made tangible through the formation of social institutions and the social behaviour of each individual within their cultural field.

Giddens (2001, 22) provides a sociological concept of culture, and he defines it as being the values and ways of life of the members of a society, or of groups within a society. This includes "how they dress, their marriage customs and family life, their patterns of work, religious ceremonies and leisure pursuits" (ibid 2001, 22). Society is then understood as "a system of interrelationships which connect individuals together" and "all societies are united by the fact that their members are organised in structured social relationships according to a unique culture" (ibid 2001, 22). Cultural and symbolic forms of capital play a crucial role in the construction of modern self-identity (Chernilo *et al* 2013, 295-299). This self-identity is, "the understanding people hold about who they are and what is meaningful to them" (Giddens 2001, 29). This self-formulation combines with a social identity, those "characteristics that are attributed to an individual by others" and place that individual relative to others in the social group (ibid).

Schein (1984) argued that *organisational culture* was the culmination of the cultural processes that operate within an organisation, as well as how that entity interacts with other organisations and individuals in the outside world. The assumptions and beliefs existing within each organisation reveal themselves in observable patterns of human behaviour. I argue that improvisational design is the intersection of the two creative and collaborative fields of improvisation and design, and may be described as 'observable patterns of behaviours'. Such patterns reveal the practicalities and politics associated with creative collaboration and, I argue, we might view forms of creative collaboration as being engrained in an *organisational culture.* In such a culture, what assumptions and beliefs might be necessary for creative collaboration to become a standard way of working?

In their influential study of breakthrough industrial innovation, Kim and Mauborgne (2004, 12-18) presented a case study of Cirque du Soleil's successful reinvention of the

traditional circus format into an original and profitable consumer experience. Cirque du Soleil remains one of the largest theatre production companies in the world. This reinvention of the circus experience was not only grounded in an innovative approach to the organisational model but also in the development of the individual creativity of its performers. This cultivation of creative theatrical performance was intended to produce new value through an intense, emotional engagement with each night's audience. Fledgling Cirque du Soleil performers arrived with individual achievement in a specific, often athletic or gymnastic, craft – but had to then learn to merge their individual technique to collaborate creatively as part of a team.

> *We need to transform an individual into a team player … and transform them into an artist who can bring complete strangers to tears just through his body language.*
>
> (Heward and Bacon 2006, 32)

Given the transformation of the service sector into an increasingly important part of the Australian economy and the continued desire for national productivity growth (Campbell and Wither 2017), it seems timely that workplace systems and tools be designed to enable unskilled customer service workers to draw on their tacit knowledge and innate capacity for originality. As we shall see in this chapter, the valuable benefits of this form of interaction design are likely to include: enhanced job satisfaction, improved customer service and increased profitability for the firm. However, this proposition also requires consideration as to whether any server who could reliably and collaboratively produce a sequence of desirably original behaviours 'in sympatico' with colleagues (and an audience of customers) might reasonably be recognised as a creative and collaborative performer. If so, then typical organisations are ill-suited to cultivating these qualities in their teams.

Even with the prospect of locating archetypal customer needs through detailed ethnographic research and presenting them via the 'micro personas' explained in the previous chapter, other organisational dynamics must also be considered. With specific regard to the distribution of cultural resources in the customer service domain, Bourdieu (1998, 5) makes convincing arguments for the oppositional, social and political forces that exist between social groups with varying levels of cultural capital. I argue that Bourdieu's model of the structural antagonism between the industrial and the creative provides a useful background context for this scenario. His model also informs the final objective of this research project, in as much as these organisational and cultural power dynamics are oppositional to collaboration, and collaboration is a core feature of both design thinking and improvisation.

It is within this dynamic social context that the most progressive firms aspire to develop positive and trusting relationships with their employees in order to engage them as active collaborators in the delivery of anticipatory customer service to their customers. In her examination of collaborative networks, Mortati (2013, 30-31) identifies the qualities of resilience (the ability to adapt) and conviviality (the ability to co-create) as the defining aspects of the collaborative relationship. Similarly, Normann (1991, 6) identified three factors as being particularly relevant to achieving the goal of achieving success in the 'moment of truth', which is the model that I have taken to represent customer service interaction. These factors are an employee's intrinsic motivation (their will to act), the workplace power culture (that frees them to act) and innate ability (their capability to act). All three of these factors were revealed in my analysis of the Ritz-Carlton model of anticipatory service, which was in turn located as a guiding framework for my 'action platform' proposition. How might the firm purposefully support these qualities?

To address this significant question, I explore a number of relevant concepts and identifying credible options that might be incorporated into the design of the 'action platform' that supports innovative customer service behaviours. To fit Manzini's formulation this must leave, "opportunities for action and interpretation open" (2011, 3). The key concepts that I explore in the following sections will be that of creativity (and how it might be engendered) and the role of the employer-employee relationship in establishing mutual trust (along with a number of associated economic benefits).

10.3 Encouraging creativity through the design of constraints

Whilst I recognise that the general field of creativity research is very large and beyond the scope of this thesis, I now provide a very brief conceptualisation of creativity and introduce a specific example of creativity research that will suitably frame the illustration of designing for divergent thinking that appears later in this chapter. This is the divergent thinking that is necessary to produce a behavioural response to the 'offer' of the 'micro persona' that represents the archetypal need upon which the firm has converged. In this section I simply demonstrate that there are convincing methods for invoking creativity through the purposeful introduction of certain constraints.

As I explained in the opening chapter, I take the definition of creativity as being the generation of that which is 'original and useful' (Lewis and Lovatt 2013, Runco and Jaeger 2012). Although quantifying the precise contribution of these separate processes remains problematic, it combines problem-finding and problem-solving approaches (Silvia, Martin,

and Nusbaum 2009). In his examination of *meaningful* learning, the educational psychologist Richard Mayer claimed that the creative process follows a predictable sequence of generating, planning (that Mayer also terms *designing*) and producing:

> *Thus, the creative process can be thought of as starting with a divergent phase in which a variety of possible solutions are considered as the student attempts to understand the task (generating). This is followed by a convergent phase, in which a solution method is devised and turned into a plan of actions (planning). Finally, the plan is executed as the solution is constructed (producing).*
>
> (Mayer 2002, 231)

As a function of its dimension of originality, creativity would appear to demand freedom (to maximise variety) rather than control (to minimise variety). This intention to maximise variety would suggest that the scope for creativity should be unbounded. However, there is a substantial body of research that suggests the presence of constraints (that bound the creative process) actually proves to be significantly more liberating than unlimited choice (Rowe 1987, 78-79; Stokes 2009; Stokes 2014; Haught-Tromp 2017). The introduction of well-considered constraints serves to frame many creative challenges in a way that prompts problem-finding behaviours (such as the search for an underlying customer need). These constraints impede the adoption of obvious but unoriginal solutions that are associated with the habitual reliance on unconscious assumptions and paradigms. This habituation may lead to the embrace of an immediately obvious idea, rather than the actor conducting an extended search for a more meaningful understanding of the problem (Sawyer 2008, 123). This phenomenon is particularly true for group work. Sawyer's claims in this regard relate to group creativity and are based on the research of Finke (1990), whose work focussed on the relationship between creativity and visualisation. In the next section, I explain Finke's method and findings with respect to constraints (as this provides a frame for my subsequent proposal for supporting divergent thinking as part of 'an action platform' for improvisational design).

Finke's method of experimentation was based on subjects, who had no specific training, mentally visualising a specifically selected range of two and three-dimensional shapes. These subjects were each given two minutes to manipulate their mental pictures of three of the shapes, in order to invent combinations that were then independently evaluated as being practical (in that they possessed a recognisable form within a number of defined categories). In addition, the combinations had to be creative, in that they were both

recognisable and original. Finke's finding was that the proportion of practical combinations was not significantly reduced by the added restriction of assigning the defining category for the invention (rather than letting the subject select a category themselves). This finding is surprising, given that the freedom to fit an invention into any of the defining categories might usually be assumed to make the task easier. More importantly, a further restriction on assigning the three parts that were available for combination significantly increased the proportion of creative solutions (1990, 45).

Finke's initial hypothesis was that these constraints prevented the subjects from simply embracing an initial, unoriginal, idea and developing it to fit within the assigned categories (ibid, 59). Testing this hypothesis further, he produced strong evidence that simply seeking to combine the randomly assigned forms in a truly original form and *only then* seeking to find a practical application within a category led to the most creative outcomes. Again, this method places a high level of restriction on the subject that (one might think) would actually act as an impediment to a creative solution. Nonetheless, the requirement to conduct a more extensive phase of divergent thinking appears to drive more original combinations (that are also developed more fully) than when early convergence is permitted, or even obligated, through the initial assigning of a category for application (ibid, 84). As a function of overwhelming and effectively unlimited choice, a completely unbounded search proves an obstacle to a subject's creativity (ibid, 162). In contrast, the purposeful constraining of the options makes the task easier.

It is notable that the most successful method that Finke employed also required the subject to exercise problem-finding behaviour, creativity, improvisation and an embrace of the imperfect during their mental prototyping (ibid, 171). These are also some of the most prominent features of 'improvisational design'. Importantly, this type of method also appears to prove intrinsically compelling in the way that it motivates the subject to invest volunteered mental energy to engage with and complete the task (ibid 1990, 59 & 110). Nevertheless, Finke warns that when subjects are asked to make creative interpretations of how another subject's combinations of shapes may be used, the suggestions prove less creative. It seems that subjects become more engaged when they are working with concepts that they have constructed themselves. This suggests that actors in this type of process should be enabled to experiment and construct their own formulation of how the various elements of the problem might best be configured.

Finke's theory regarding the processes that lead to the creative application of the original combination of shapes is oppositional to the model proposed by Newell and Simon (1972)

– in which the subject's unconscious or subconscious mental processing generates a solution. Finke argues that the assignment of the form to the task is largely serendipitous rather than a function of reflexivity (1990, 170-172). He discounts the effect of an unconscious mental process that acts more intelligently than the conscious mind. He accepts that the unconscious may be more aesthetically attuned, thus supporting more original combinations, but locates the success of the method as being reliant on the creative use of "the things we create" (ibid, 172).

Other than for the simplest problems, for which an easily deducible solution exists, human problem solving is founded on the use of heuristics. The repertoire of available heuristics is founded on personal experience and may be biased to favoured approaches. In his research into collaborative problem solving, Straus (2002, 220) claimed that a core set of just 64 problem solving heuristics exists, and that mental access to these strategies provides a significant advantage in the field. However, the Newell and Simon model indicates that in addition to any learnable model or process, a problem solver must realise that a 'strategic moment' has arrived and this suggests the need for personal reflexivity. Reflexivity is required for an awareness of when one is using a heuristic, and whether or not it is proving effective. Receptiveness to potentially illuminating analogies may trigger this desired mindfulness and it may also be cued by other stimuli. Therefore, an effective problem solver can ably switch between conscious and subconscious thoughts and has access to a wide range of analogies.

It must be remembered that Newell and Simon's model illustrates a system that underpins general problem solving. In their model, problem-finding is framed to varying degrees by the problem solver's choice of personal heuristic. Newell and Simon also make the assumption that an individual's store of heuristics is neither used optimally nor randomly. Whether through habitual reliance on a favoured few or as a function of an ingrained paradigm, some heuristics may be accessed more than others. Also, given the limits of mental processing, it is unlikely that the store of heuristics is accessed in the order that would – with the benefit of unbounded hindsight – have proved most effective (even if there are only 64 variants as claimed by Straus). Newell and Simon claim that a 'strategic moment' must arrive to trigger the move to another heuristic. In matters of logical deduction it may be quite obvious that a different heuristic is needed, whereas in matters of creativity (where the evaluation of effectiveness may be largely subjective) effectiveness is less clearly defined.

Many problems in the creative realm are constructed and stylistic, rather than being rooted in functional practicality or formal logic. Accordingly there will be no single and deducible correct answer to such a problem. Consequently, a means of generating an acceptable solution may be that the user simply adjusts their underlying assumptions about the nature of the problem and in reframing it comes to understand it in a more valuable – or meaningful – way that leads to resolution (Schein 1984). Johnson explains this as the *generate-evaluate* cycle during which a designer evaluates whether a "problem is over-constrained (no solutions) or under-constrained (too many solution)" (2010, 194). As with the problem solving models proposed by Finke and Newell, the actor may be pushed towards a more effective problem finding approach through the introduction of a well designed constraint. I shall now provide a brief example of how these effects might be incorporated into the type of 'action platform' that supports creative practice.

10.3.1 An example from practice

Whilst working together in the 1970s, the musician Brian Eno and the artist Peter Schmidt discovered that they had each been applying an informal system that assisted them in breaking free of their ingrained thinking during creative production. Each had developed the habit of presenting himself with a deliberately constructed "worthwhile dilemma" (1997, 34) at moments when they felt they had encountered an impediment to their creativity. Schmidt had entitled his version of this method *The Thoughts Behind the Thoughts*[1]. Since Schmidt's death in 1980 Eno has curated the content of their method, which is now entitled *The Oblique Strategies.* The original artifact contained approximately 100 playing cards that each contains a single, provocative, phrase or sentence (and it is now available as a smart phone application). Eno explained that the method is useful for "creative and problem-solving situations" and are intended to "derail normal thinking habits when they've proven ineffective" (Eno 1996, 34).

Some examples that typify the method include:

- *Honour thy error as a hidden intention*
- *Trust in the you of now*
- *Use 'unqualified' people*
- *What wouldn't you do?*

[1] Note here the parallel to my formulation in Chapter 5 of reflexivity as being the capability for one to think whilst also *thinking about one's thinking*.

(Ibid)

As with the restrictions imposed upon Finke's subjects, *The Oblique Strategies* push the user to engage with the mental challenge to construct a personal meaning that– encourages them to discard their prevailing paradigm of a problem and to apply a new approach. Interestingly, this method does not introduce (or even suggest) a novel solution and instead prompts a moment of personal reflection. Any resulting novelty is emergent. The overarching concept of this method (once understood) seems reasonably simple to emulate. In his 1995 diary, Eno includes a number of suggestions for potential inclusion in an updated version of *The Oblique Strategies*. These examples arise in an 'ad hoc' manner, rather than through any deep concentration or detailed process. In short, they seem relatively easy to produce and four examples are listed below:

- *Describe the landscape in which this belongs*
- *What else is this like?*
- *How would you explain this to your parents?*
- *Try faking it*

(Ibid, 172)

In Finke's model and *The Oblique Strategies* the user is pushed to use a new heuristic (moved to the moment of reflexivity) by the constraints that are purposefully introduced. *The Oblique Strategies* actually offers a range of heuristics, even though each may require a personal interpretation by the user in order for them to apply it most effectively. Thus, wildly different solutions to a perceived problem may emerge from the same heuristic, and each may still qualify as effective or useful (given the subjective lens).

As I argued in Chapter 4, the investigative and experimental orientation of improvised behaviour is analogous to the prototyping methods of design. I referred to Miner, Bassof and Moorman (2001, 309) employing the term "behavioural productions" to denote specifically those novel behaviours that might be generated (and also tested) by acts of improvisation. Here too, constraints appear to be important in confining the problem space sufficiently to stimulate novel thinking (Stokes 2009, Stokes 2014, Haught-Tromp 2017). As I also explained, the 'offer' (as used in improvisation) provides a point of convergence that requires a level of novelty in the performer's response, in that they must accept any 'offer' and so must operate within the constraint's of that 'offer' in order to produce a coherent response.

Miner, Bassof and Moorman referred to the "fusion" of design and execution (2001, 314), and this simultaneous recognition of problem and solution has been theorised in other

research (Koestler 1975, 137; Duggan 2007, 14; Dorst 2009, 285). It seems then that any 'action platform' that is designed to support improvisational design should also pay close attention to the effects of these constraints (that serve to support creativity). Like the 'offer', these constraints provide the nexus of convergent and divergent thinking. Rowe (1987, 78-79) referred to these constructs as "autonomous or independent constraints" that are not inherent to the design problem but may be purposefully introduced to initiate "a reformulation that greatly facilitates further problem-solving activity" (ibid, 79).

Finke's method relied on visualisation, and Sawyer[2] also emphasised the effectiveness of visualisation as a catalyst for creativity (2000, 110). Sawyer explained that it not only frees the actor from their personal linguistic constraints but also provides levels of *both* clarity and ambiguity (than are usually created with words). Sawyer meant that there is a particular duality to visual imagery in that (at high resolution) it can be employed to communicate a specific detail that may be necessary for mental clarity but (at low resolution) it can also leave scope for interpretation and new combinations. The fact that a visual representation can be perceived in the moment of a glance also supports its use as a tool for improvisational design.

As we have already seen, it would seem that a carefully designed representative image might be developed to have the same influence as an exemplary (or archetypal) user persona (Grudin and Pruitt 2002) – but at a glance. If a firm were to use structured research to converge on these 'micro personas', the representational images might then be presented to the service worker with the same intention as an improvisational 'offer'. The service worker might then be encouraged to respond through the improvised generation of prototype behaviours. This form of collaboration might be recognised as an act of collaborative design that occurs across space and time, as the artefacts that encourage divergent thinking may be dispersed across locations and accessed by the service team as needed. If workers could be intrinsically motivated to connect with a network of customers and colleagues through an increased variety of service behaviours – this scenario would meet Ackoff's (1994) definition of a *social system*. Consequently, rather than being mandated as a workplace obligation, this platform for improvisational design might benefit from converting routine work into a form of play (Walz and Deterding 2014, 330).

[2] Although he also claimed that the ambiguity associated with speech often leads to new interpretations that lead to innovation.

It was clear in Finke's experiments (and in my examination of the methods of prototyping and improvising) that unbounded choice often proved overwhelming to the participant and was (paradoxically) limiting to creativity. The purposeful introduction of a constraint that narrows the field of search and disrupts habituated thinking proved conspicuously effective in supporting originality. When this constraint is designed with the intention of guiding the participant to access their creative autonomy – and that allows them to think synthetically and to act authentically - it seems reasonable to identify this as the type of special constraint that might enhance an employee's experience of usually routine work.

There are already design tools available that encourage a playful and enquiring approach to the enquiry and creation phases of work related projects. Wild-Goose Media Ltd produces a set of Design Dice™ that encourage creativity through the effectively unlimited combinations of 'prompts' that help project teams when they are not clear on where to start or feel 'stuck'. These dice also introduce an element of time constraint that brings fresh impetus. IDEO produce the *IDEO Method Cards* that similarly provide an element of randomness that introduces the fresh perspective required by the suggestion (and associated constraint) of an IDEO design method.

There are also more fully developed 'action platforms' that enable creative collaboration for the purposes of solving business problems, with the LEGO Serious Play method being a prominent example. Although this system is intended for application in team workshops, away from the interface with external customers, it has a number of characteristics that are relevant. Kristiansen and Rasmussen define three key dimensions of its serious play method:

- *It is an intentional gathering to apply the imagination*
- *It is exploring and preparing, not implementing*
- *It follows a specific set of rules or language*

(Kristiansen and Rasmussen 2014, 40)

This LEGO method is intended as a means of supporting group collaboration and systematic creativity – in order to break habituated thinking (Kristiansen and Rasmussen 2010, 21-22). This is a different scenario than the prompt creation of innovative service behaviours, and an expert is required to facilitate this serious play method (and that role is akin to that of the 'joker' that was explored in several of the previous chapters). The role of this 'joker' was to playfully facilitate the experimentation of the collaborative group. Kristiansen and Rasmussen argue that compelling group participants to express their business ideas through

the metaphor of LEGO constructions enhances levels of focussed attention; serves to mitigate institutionalised power relationships; and breaks "habitual thinking" (2014, 23). However, the forces at work whilst participants are immersed in the play method are explained as being a language of metaphors that largely mitigates the typical power imbalances that prevail in organised workshop sessions. This specialised use of the LEGO bricks "creates a language that connects within and between brains" (ibid, 23).

Ackermann, Gauntlett, and Weckstrom (2009, 56-57), also writing in connection to the creative possibilities supported by the LEGO method, explain that language is the most common form of creative system. They also propose that play cannot feel free without constraint, and that "play requires both boundaries (order) and the impulse to cross them (chaos)". It is the habituation and rigidity that human beings eventually tend towards that reduces this impulse to cross the threshold into the "freedom of play" (Ackermann, Gauntlett, and Weckstrom 2009, 86).

The cognitive immersion of 'free play' is closely associated with the enjoyable experience of 'flow', which Csikszentmihalyi originally described as being:

> *A unified flowing from one moment to the next, in which we feel in control of our actions, and in which there is little distinction between self and environment; between stimulus and response; or between past, present, and future.*
>
> (Csikszentmihalyi 1975, 43)

Although there is an intrinsic reward in experiencing this 'flow', this state is theorised as being most typical in performers (in any field) who have a high level of competence that has been achieved through substantial practice. Highly competent and well-established teams may also experience 'flow' - particularly when improvising - and the accompanying experience of intrinsic reward (see Sawyer 2008, 57, Krippendorf 2004a, 60). Although these states and associated rewards may become available to those that achieve proficiency, the focus of the 'action platform' that I propose is trainee customer service employees. For their personal benefit (and the benefit of the customers that they serve) it is the *appearance* of fluency that is immediately relevant.

I build on Pine and Gilmore's argument that work is "theatre" and that the theatrical approach is not intended as a "metaphor but a model" (1999, 104-105). Therefore, it is the improvised *performance* of the new customer service employee that I wish to support. Pine and Gilmore identified improvisational performance as a dynamic means of "finding value

from something new" and argued for the need to develop improvisational skills in the workplace (ibid, 124 & 126). However, in advocating for the cultivation of "retail troupes" (ibid, 126) they also emphasised the need for the employee-performers in these "troupes" to maintain their personal authenticity (ibid, 112).

Goffman differentiated between the general performance of any actor and the specific 'front' that they might create to bring credibility to each performance. This 'front' involved fostering a particular impression that would harmonise the various factors of the performance to create coherence, and this 'expressive infrastructure' might incorporate useful artefacts that support the performance. When playing a particular social role these artefacts become props for the dramatisation of the self. In a customer service environment, the setting may be specifically designed to provide the 'stage' and 'props' that support a convincing performance and – with the café team having control of this setting - it may construct an appropriate 'front'.

In order to support these new creative practices in the workplace (such as the language of play), evidence is emerging that organisations need to deliberately design "*creation spaces* that facilitate (rather than limit) interactions and relationships" (Walz and Deterding 2014, 481). In assessing the future design of these 'creation spaces', it is useful to consider that a typical enabler of fluency is familiarity and there is evidence to suggest that fluency generates positive affect which in turn increases not only the inclination to rely on intuition but also its effectiveness (Hicks et al. 2010). How might the customer service workplace be re-designed to serve as a familiar 'creation space' that supports teams of employees to collaborate in the 'group flow' state?

In keeping with the intention to present intuitively familiar material to invoke creativity, it will also be useful to avoid unnecessary embellishment in the design of its presentation. Naoto Fukasawa identifies a range of objects that are simultaneously "normal" and "exceptional". The design of these items has been so enduring and familiar that their exceptional forms cease to be "perceived or perceivable" (Fukasawa and Morrison 2008, 5). Fukusawa locates these qualities in the lengthy history of an object's design progress – that reflects the contributions of many anonymous designers, which has been drawn towards a final state by the archetypal needs of the user.

> *Through the years, objects are created and then used; any deficiencies are corrected; the object is used again … then corrected again – the relationship between people and objects reaches an end point. This also means the form reaches an end form.*
>
> (Fukasawa and Morrison 2008, 109 – 110)

He rejects the assumption that distinctive design must be noticeably "special" and instead looks for what is "normal or archetypal" in an object's category. These qualities provide the foundation for forms that can accommodate users' needs over the long-term (Fukasawa and Morrison 2008, 101). Finke's experiments illustrated that subjects could produce the most original solutions when faced with mundane forms that required creative combination, and were only then fitted to a particular category for use. Rather than any need to produce truly bespoke materials, it follows that routine objects would still support the origination of new service behaviours.

I contend that a specific 'action platform' might be developed that provides a connection between the convergent thinking (on behalf of the firm) to the divergent thinking (on behalf of the front-line service worker). The connecting 'bridge' is the 'micro persona' that communicates the firm's 'offer' for an improvised response. The use of familiar designs and forms to present the 'offer' of these archetypal customer needs and to prompt the intuitive access to serious play may prove particularly suitable. This method is intended to support customer service workers in drawing on their existing creative and emotional and resources, in order to act authentically but with apparent fluency.

10.4 Demonstrating an 'action platform' for innovative customer service behaviours

In the previous section, I presented several existing methods for triggering problem-finding behaviour that encourages a creative and playful response. In Chapter 9, I examined how a firm might conduct research to converge on archetypal customer needs and encapsulate these need states in 'micro personas'. To demonstrate this method, I used the sixteen recurring 'need states' that were revealed in the ethnographic study performed for Dome Coffees Australia. I now propose several methods for supporting divergent thinking that is expressed through improvised customer service behaviours. I suggest a range of specific guidelines and components that when combined to support collaboration between the firm (which has used design research to converge on meaningful problems) and the front-line employees (who will produce a creative improvised response), will demonstrate the concept of the 'action platform' for service innovation. The dynamics at work within this speculative 'action platform' are those that I argue exist at the intersection of design and improvisation.

The ‘action platform’ that I propose is an illustration of improvisational and design thinking being applied to a specific and relevant domain – that of anticipatory customer service in a café. However, I argue that a general method of *designerly* improvisational might be applicable to other design *for* service problems that respond to complex environments for which specific and static solutions are ineffective. Manzini explains these environments thus:

> *Services are complex, hybrid artefacts. They are made up of things – places and systems of communication and interaction – but also of human beings and their organistions. They therefore belong to the physics of natural and technical systems and to biology, but also to sociology and the culture of human beings.*
>
> (Manzini 2011, 1)

Given that my illustrative method is intended for use in the hospitality industry, I draw upon the paraphernalia that is typical of a contemporary Australian café. These artefacts include such items as: newspapers, magazines, serviettes, water, ice, crayons, paper, crockery, coffee and cakes. As these items will be incorporated to add variety to the improvised customer service performance, I shall refer to this range of artefacts as ‘props’. These ‘props’ will be combined with the ‘micro personas’ and a number of familiar play items (such as playing cards and dice) to construct a playful system – that is an example of the ‘action platform’ that Manzini envisaged. I have also introduced the option of time constraint that demands the element of spontaneity that is central to competent improvisation.

Figure 10.1 presents opposite sides of a ‘micro persona’ card for the Working Session customer need state. On this card the Working Session customer need state is personified in Wendy Smith. The front of the card contains the avatar for the personification and that character’s name – which is a mnemonic that assists with recall of the relevant state of need. The back of the card contains a short introduction to the character and a number of reminders about their underlying needs. The reminders are phrased using infinitive verbs in order to convey the ongoing archetypal need rather than implying any particular solution.

Figure 10.1 Both sides (recall and reminder) of a 'micro persona' card

As I have explained, ‘Wendy Smith’ is the clue to the features of a customer’s need state not his or her demographics. The fictional name does not denote a gender. To ensure that the user keeps this in mind, there are multiple depictions of a number of need states. These cards have different customer avatars on the front side, but the same customer preferences listed on the reverse side. See Figure 10.2 for an example of the Social Contact customer need state being personified as both Susan Cooper and Steve Clarke.

Figure 10.2 Different avatars for the Social Contact customer need state

To reflect the gradual improvement in improvisational design capability that a café worker might experience as they train and practice, this speculative system has five levels of play – which I explain below. The levels reflect Dreyfus's (2004) model of expertise, and Mosely, Wright and Wrigley (2017) have mapped these levels against Dorst's (2009) hierarchy of 'design intelligence' to revel a strong conceptual relationship. This relationship suggests that the acquisition of design expertise is not only driven by practice but also the incorporation – and synthesis – of new domain knowledge. I envisage that new employees will be trained when the café is quiet and that a trainer colleague will assist in identifying customers in the specific need states. I also envisage that more experienced employees will train themselves when the café is busy and most of the customer need states will be represented and available for experimental practice.

Table 10.1 An overview of how to 'play' at each of the five levels of capability

Playing level	Method
Novice	When a trainer observes a customer who may be in a specific need state, the relevant 'micro persona' card is presented to the novice. The novice may look at the front of the card (for recall) and back of card (for reminders) before approaching the customer.
Advanced beginner	When a trainer observes a customer who may be in a specific need state, the relevant 'micro persona' card is presented to the novice. The novice may only look at the front of the card (for recall) before approaching the customer.
Competent	The trainee identifies the correct 'micro persona' unaided and may refer to the front of the relevant card (for recall) and select a 'prop' of their choice before approaching the customer.
Proficient	The proficient employee is issued with a 'micro persona' card and a random 'prop' with a two-minute time constraint. They must improvise a suitable behaviour and then approach the customer.
Expert	The expert employee is issued with a 'micro persona' card and a random 'prop' with a one-minute time constraint. They must approach the customer and then improvise a suitable behaviour.

The materials for the 'action platform' will be presented as a method for play (see Figure 10.3 below). Although I have included an overview of how the different skills levels might use the method, it is deliberately unstructured – to support new interpretations and uses. I suggest that social media platforms would provide a low cost means of sharing new 'winning' behaviours as they emerge, as well as any reflections on how the method might be used most effectively or improved.

Figure 10.3 An example of what the 'action platform' might look like

This speculative ‘action platform’ for innovative customer service behaviours employs the following items:

- An introductory booklet that explains each of the needs states and suggests how the various artefacts might be used, but also encourages experimentation
- A deck of ‘micro persona’ playing cards, each of which depicts an archetypal need state (these were presented in Figure 9.4)
- A note pad that will be used for compiling (and numbering) a set of either six or twelve typical café artefacts that may serve as ‘props’ for each training or practice session
- A set of numbered dice and a dice shaker that will provide the element of randomness and surprise in selecting ‘props’ to combine with the customer need state
- Each of the dice will be labelled one to six, so that up to twelve different props might be selected and listed on the note pad for a training or practice session
- One-minute and two-minute sand timers that will provide the dimension of time pressure that may vary according to the employee’s level of skill
- A box to store the various pieces, and to encourage a playful approach

A competent trainee might suspect that she recognises a male customer as a ‘Wendy Smith’ (the Working Session need state) and glance at the front of the relevant ‘micro persona’ card. Remembering that ‘Wendy Smith’ loves to host clients without spending a fortune and to avoid eating too many treats (see Figure 10.1), the trainee might ask ‘Wendy Smith’ if he would like the cakes that he is ordering to be cut into bite size pieces and arranged on a larger plate. This might make it easier to share the items amongst any of his clients, as well as enabling smaller portion sizes and greater variety - at no extra expense to ‘Wendy’.

During a busy service session, a proficient employee might playfully be presented with a ‘Wendy Smith’ card and have the one-minute timer upturned (to start the countdown). Referring to the current list of permitted ‘props’ the employee might grab a newspaper, fold it open at the business section and then take it to the customer. As they clear any empty plates and cups, they might very quickly introduce themselves and suggest that ‘Wendy’ might like to read that day’s business news if time allows. If this suggestion proves to be a ‘winning’ behaviour, the employee might share the innovation with the rest of the team(s) using social media.

In either of these examples, the employee’s experiment might fail to be received as a ‘winning’ behaviour. However, these are intended as speculative, prototype behaviours and are not required to be a guaranteed success. Nevertheless, it is hard to imagine that either experiment would detract from the customer’s experience. Ideally, the employees would both be commended by colleagues for his or her preparedness to experiment. Given the low cost of the platform’s components, the lack of technical training required for the participants (who effectively self-train) and the opportunity for sharing new solutions via social media, this method of combining improvisation and design thinking seems credibly sustainable – even for small enterprises.

10.5 Conclusion

Even though the creative autonomy of the server may increase job satisfaction and complement an increased expression of personal identity, original service behaviours must also be properly tuned to the situated needs of the customer. This is why natural and authentic interactions cannot be scripted or (when truly original) predicted. There must be room for variety. Again, this frames the case for demarcating relevant problem spaces in which the server might be directed to operate with minimal judgement (by any local supervisor) about their resulting choice of service behaviour. This is in order to ensure value creation for the firm, the customer and the server. Effectively, the focus of the firm’s

management becomes the cultivation of the system environment in which the 'action platform' operates rather than the operations within that system.

This approach to management does not apply to those problems for which only a single, deducible solution exists or where a specific piece of technical knowledge - such as a specific emergency procedure – is called upon. In technological and safety critical environments, the deliberate reduction of variety may be the correct approach. In Martin's (2009, 7-8) conception of the 'knowledge funnel' that represents the way that the design thinking approach can reliably convert the mystery of complex problems to predictable 'algorithms', there is a midway phase of 'heuristics'. In this phase, the problem is well enough understood that *rules of thumb* may be applied to respond to problems with reasonable (but not guaranteed) success. These *rules of thumb* still allow for the problem to be interpreted and resolved in multiple ways. Sawyer (2008, 146-147) terms this characteristic 'equivocality' and argues that it is a key element in creative collaboration and improvisation.

In this 'heuristic' phase, there will be many occasions where the attempt to produce a 'winning' behaviour is unsuccessful, either because it lacks true originality or because it fails to delight the customer. However, the risk to the firm and the customer is very low. In between the unlikely (but not impossible) result of causing offence and the more likely result of producing a delightful creative moment, unremarkable attempts will either go unnoticed or be quickly forgotten by the customer. Vera and Crossan (2004, 738) wrote that although the goal of creativity may be perfection, the process inevitably generates errors – and these 'errors' are the hallmark of personal involvement and a preparedness to 'take charge' of a situation. They claimed that workers within an organisation needed only to know the principles and constraints within which they may operate, in order to "free their creativity and spontaneity" (ibid, 739). Despite this context, there remains the challenge of rejecting the typical organisational culture that encourages a tendency to behavioural omission and avoidance, rather than commission and the associated risk of failure. Ackoff (2006) is definite in his claims that opportunity costs of the former usually dwarf the realised costs of the latter, but this typical organisational disposition must be taken into account in any attempt to encourage experimental collaboration in the workplace.

Collaboration requires a significant level of trust (cf. Keast 2016, 160-161) and only a genuine relationship can effectively accommodate its creative tensions. In addition to the 'relational dimensions' of collaboration, there must be a degree of interdependence and commitment to a mutual goal. Participants in collaboration must be able not only to achieve a shared goal but also their personal goals (as part of the collective effort). Hastrup

stated that "creativity is a profoundly 'social' fact – as eccentric as it may be" (2007, 193). It seems then that if a customer service firm wishes to cultivate the creative collaboration that might lead to a vicarious relationship with its customers, it must first develop a social relationship with its employees. Consequently, in the next chapter I examine how this employer / employee relationship might be understood and encouraged (for both the individual employee and dispersed teams). I do this by drawing upon the Argyris's seminal theory of the *psychological contract* (1960), and its development and relevance to the modern workplace. I shall also use this specific example of complexity in human relationships to reveal some more general considerations for the future role and relevance of human-centred design.

Chapter 11 The Wider Implications for Design Knowledge

11.1 Introduction

Having demonstrated how the features shared by improvisation and design thinking might be incorporated in an innovation 'action platform' that supports convergence on customer need states (problem-finding) and divergence in innovative team behaviours (problem-solving), I now use the wider industrial and social contexts to consider the potential implications for design knowledge. In this chapter, I reveal the relevance of key design and systems theorists to these considerations. In particular, I return to Manzini's conceptualisations of 'diffuse' design and design *for* services. I examine his arguments for how we might understand *Design, When Everybody Designs* (2015) – and the need for design theory to reflect increasing complexity in a new era of interconnectedness and networks.

I have also explained that a firm requires a means of communicating its objectives to its teams of employees without relying on the usual means of a specific instruction, and without anchoring them to any particular solution – as this is contrary to the goal of variety. An intention of this research is to support 'real-time' customer service innovation, and it is important to remember that 'innovation' implies the actual implementation of novel ideas. Creativity alone is not sufficient to meet the criteria for service innovation (Jones and Samalionis 2008, Li and Hsu 2017). Therefore, in this chapter I also consider some of the practical realities for firms that wish to encourage their employees to experiment with improvised design, and the associated challenges and opportunities for the field of design itself.

In the two preceding chapters, I have described specific characteristics that are to be included in the 'action platform' that is intended to drive innovative service behaviours. These characteristics relate to the four distinct categories of a process framework, collaboration, a prototyping orientation and reflexivity. I identified these four categories (along with examples of each) through my analysis of theory and the empirical evidence produced by the comparative analysis I conducted in the case studies. The category of *process framework* was composed of cognitive processes, such as divergent and convergent thinking. The categories of collaboration and prototyping contained characteristics relating to the generation of, and experimentation with, ideas - respectively. This guiding framework of design characteristics is intended to narrow the very wide range

of subjective choices that an organisation using this 'action platform' might make to localise its design[1]. However, a suitable level of personal reflexivity is also needed to support improvisation that might be discernible as being *designerly*. How might firms either enable or invoke such reflexivity in its employees?

As part of his analysis of means of designing *for* services and *for* social innovation, Manzini recognises the need for a framing infrastructure that provides digital platforms, physical spaces, communication channels, and access to 'expert' design (2015, 155). In fact, he argues that "an important task for expert design is to promote and develop" the personal collaborative capabilities that he sees as being "widespread" (ibid, 154). I have argued that the 'action platform' supports collaboration across time and space. Manzini acknowledges that a design team can now no longer exist separately from the delivery of its design, "[i]n our connected world, when everybody interacts with everyone else almost independently of space and time" (ibid, 48). When a sociotechnical network (whether "individual and collective, or design experts and non-experts") collaborates in order to achieve a shared goal, Manzini recognises this configuration as a design *coalition* (ibid, 50).

Furthermore, in understanding collaboration as an encounter in which people exchange something that creates shared value, Manzini also opens the argument for the service encounter to be recognised as an act of collaboration *in itself* (ibid, 93-94). If the service encounter parallels the collaborative encounter then it follows that service organisations and systems must be collaborative organisations and systems. In a modern era of imagination-based 'life projects' - through which we increasingly seek to collaborate in order to express our identities (ibid, 84) - we are all designers and the human desire to create must be kept in view. Arguments for the need to anticipate and accommodate 'design in use' serve to reinforce this point, as it is a factor that can support the creation of value in a consumer's dynamic interaction with an artefact.

Given the context that it brings to Manzini's arguments, I have already examined Ackoff's (1994) seminal conceptualisation of a social system, and established it as an enabler of synergy that results from the increased variety of connections that exist within such a system. This model for producing value-creating connections is relevant to the socio-material configuration of service that I have examined in this thesis. It seems clear that such a system is appropriate for containing the wide variety of interactions (and relationships)

[1] The illustrative design that I presented responds specifically to the observed 'need states' of several cohorts of Dôme Café customers. However, the core principles in my example are transferable to many other customer service operations (subject to each firm identifying the archetypal 'need states' of its customers.)

that would need to be sustained within a customer service environment. Accordingly, the characteristics that I propose for incorporation in an innovation 'action platform' that supports a useful variety of service interactions parallel those of a social system.

This type of social system is one in which the purpose of the both the system and its parts is the creation of synergy. This synergy is created through the increased variety of social interactions that is facilitated within the system.

> *A system can affect its parts in two ways: by either increasing or decreasing the variety of behaviours they can display. Since social systems contain purposeful systems as their principal parts, and purposeful behaviour consists of choices of ends and means, social systems must either increase or decrease the variety of choices available to their parts. They may increase the variety of some types of behaviour, and reduce that of others.*
>
> (Ackoff 1994, 180)

An important element of these systematic interactions is the human *anticipation* of how synergy might be generated through a bespoke form of mutually beneficial exchange. As an expression of reflexivity, empathy was a characteristic that I observed in the case studies of both design thinking and improvisation process models. It also features in the management-oriented design thinking discourse, particularly in Brown's arguments. He wrote of the "empathic approach of the design thinker" (2009, 188) and the flexible, responsive systems of participatory exchange that create opportunities for systematic "empathy, insight, innovation and implementation" (ibid, 188). Empathy thus seems a powerful resource for detecting latent human needs (a state of 'pre-use') and anticipating how value might be created in any designed response.

Nevertheless, there is no guarantee that even a well-credentialed designer will correctly perceive the underlying (often unconscious) needs of a potential user. Even the usual tools of design thinking and service design may be insufficient. As an example, empathy maps (a popular UX and service design tool) may well fail to express the situated needs of a user in sufficient detail. The beguiling 'glossiness' of an empathy map may serve to mask occasions where the designer has failed to reach an empathic grasp of the user (Siegel and Dray 2019). Furthermore, once any erroneous assumptions regarding user-need are crystallised in an empathy map these assumptions are likely to lead to erroneous solutions throughout the duration of the design project. This is why organisations need to find new ways of capturing the genuine user-narrative on an ongoing basis, and why "the mysterious

process of inspiration" (ibid, 83) must be systematically embedded. As I have already argued, this need to build reliable processes for 'triggering' empathic inspiration supports the devolution of a nuanced design resolution to the location of each 'real' user interaction.

I reviewed the service management literature and took Normann's concept of the 'moment of truth' as the seminal definition of the service encounter. This 'moment of truth' relies on the situated interaction between the capability and motivation of the server and the expectations and unforeseeable response of the customer (1991, 21). I argue that the professional does not exist entirely separately from either the personal or the social. This human interaction contains not only the formalities of the service encounter but also all of the informal characteristics that both the server and served have acquired throughout their lives. Consequently, I make the link to Manzini's claims regarding newly forthcoming economic structures and networks in which complexity is dispersed to the 'margins' rather than being centralised. He referred to this configuration as the 'next' or 'distributed' economy (Manzini 2011, 1-2, Manzini 2015, 20). In both instances only those operating at the margins of these economic networks have knowledge of the specific and current details of user-need. I contend that although empathy might inform the general design *for* a service, it is most usefully invoked in the co-construction of each specific service interaction (through which value is realised).

However, Manzini also anticipates a transformative structural change that will support and accelerate this widespread shift in organisational approach. He accepts that bringing them into reality would require new forms of engagement and inter-relationship. If this is the case, what might these new individual and collective relationships look like?

At the very start of this thesis I emphasised the opportunity for employee empathy and creativity (that are claimed to be central to human-centred design) to be more effectively engendered within business and government organisations. In achieving this there is the promise of enabling employees to act authentically and to draw upon their personal capacity for reflexivity. I have argued that an organisational paradigm that devolves creative decision making to the instant of the service interaction (Normann's 'moment of truth') will prove mutually beneficially to the firm, customer and employee. These workplace relationships are framed by their own particular organisational culture or social system, and in turn this local system is embedded in a constraining system of the wider society and economy. Given this, I shall now examine how customer services organisations can cultivate improved collaborative relationships with their individual employees and dispersed teams to support creativity (in their ideas) and innovation (in their implementation).

In their study of innovative behaviours in the hospitality industry, Li and Hsu refer to "employee's intentional behaviours that lead to new products, production methods, organizational structures, or other work-related results" as 'employee innovative behaviour' (2017, 166). These behaviours parallel those that I referred to as 'winning' behaviours in the preceding chapter. Li and Hsu argue that this form of innovation behaviour has multiple stages, including "idea generation and implementation" (ibid, 166). These theorists also recognise the advantage that customers who are actually in direct contact with employees have in determining "preferable alternatives that can solve service problems" (ibid, 166). This form of human-to-human interaction has benefits that are not easily replaced by even highly sophisticated digital interaction.

We have seen the compelling arguments for the benefits of service organisations cultivating distributed decision-making networks in which those employees at the 'margins' have the local knowledge to select and deliver innovative 'winning' behaviours. Despite the attractive benefits for the firm and the guidance from theorists such as Manzini, can management relinquish decision-making control and resist the temptation to specify solutions? Doing so would require the devolution of positional power, the presence of trust and the freedom for employees to risk 'failure'. By what means might a firm build and sustain relationships with its employees that support such a culture? If this goal were achieved, how might it benefit the service workers who are called upon to enact the devolved decision-making?

11.2 Encouraging individual innovation - the 'psychological contract'

An explanatory model for the dynamics of the relationship between the employee and the firm is found in the theory of the 'psychological contract'. This model represents an employee's personal perceptions of their agreement to 'sell' their skills to an employer. Although (Argyris 1960) is identified as the first user of the term, there has been considerable research conducted in the 1990s and onwards which seeks to add to his definition.

It is, of course, impossible to include every contingency in a written employment contract and the psychological contract acts to fill in the gaps. In building on Argyris's work, theorists developed its conceptualisation as a mental model with which each employee constructs an unwritten contract of perceptions regarding mutual employment obligations (Rousseau 2001, 519; Guest and Conway 2002, 22). These mental schemas are likely to

provide important cues for new hires on how to deal with lack of detailed information regarding their role and their broader relationship with their employer.

A problematic aspect of the theory is that an employee may form his or her own set of expectations about the implicit terms of the employment contract, but an organisation is not a single human entity; it has no equivalent internal 'voice' (Schalk and Rousseau 2001, quoted in Guest and Conway 2002, 22). However, the 'voice' of the organisation is in fact its prevailing culture, and this frames its relationship with its employees. This is the *organisational culture* conceptualised by Schein (1984) and – as I explained in the previous chapter - it is the means by which employees navigate behavioural choices in the workplace, as well as the context for the psychological contract that emerges and forms between an employee and that organisation. For the devolved decision-making that supports improvisational design, and reflects the type of structures that Manzini predicts, the organisational culture must be one that is founded on a strong sense of inter-relationship. As I have explained, only a strong relationship can accommodate the creative tension of collaboration and the mutual trust necessary for experimentation (with its associated risk of 'failure').

Psychological contract theory actually has its foundation in the context of the relational contract, and it is the relational contract (one that benefits from the trust associated with a mutually beneficial relationship) that is the driver of underlying value. The occurrence of genuinely discrete transactions is actually very rare. The presence of reciprocal trust that is encapsulated in the relationship enables the appropriation of mutual value, as the actual enforcement of a transactional contract (theoretically associated with discrete 'one off' exchange) would drastically diminish the value of most economic exchanges (MacNeil 1985). This is the case irrespective of the development of associated contract law. However, the crucial point is not that the role of the transactional contract is redundant – more that the role of the relationship is significantly under-appreciated by many institutions.

Bourdieu made similar arguments for social capital being the accumulated value (stored within a relationship) accruing from the "expenditure of time and energy and so, directly or indirectly, of economic capital" (1986, 4). This generation and storage of capital through the origination and maintenance of useful social connections is based on the value inherent in effective and recursive social exchange (as framed by MacNeil), and is a form of economic value. It is the trust, familiarity and fondness, which may spring from human interaction that is the creator of this form of capital. Its presence confirms the primacy of

the relationship, as opposed to the notion that the 'in person' social transaction might be substituted with a digital alternative without any loss.

The content of the psychological contract might then be imagined as various forms of currency: economic, socio-emotional and ideological (Thompson and Bunderson 2003). The various dimensions of the psychological contract may be represented along a relational-to-transactional continuum, expressed as the following pairs of opposites: long-short term, high-low trust, career-job, flexible-rigid, commitment-control. Importantly, and in addition to any perceived exchange between the employer and employee, the employee may be motivated by how their personal actions relate to "promotion of a cause they highly value" (Thompson and Bunderson 2003, 571). A comparison with the Ritz-Carlton Service Values that I analysed in Chapter 8 indicates that this firm's framework for anticipatory service (a useful analogue for improvisational design) relies on the dynamics associated with a relationship-oriented psychological contract – with it being high in trust, flexibility, commitment and personal development.

Importantly, the experience of a service interaction also creates a 'moment of truth' for the employee, as they act as the intermediary between the organisation and the customer. In their study of transient authenticity, and how it may be evoked through workplace design, Yagil and Medler-Liraz (2013) highlighted that the worker's estimation of whether they have been sufficiently enabled and resourced by their employer feeds into their preparedness to express authenticity in their behaviours. As per the findings from other studies of proactive 'taking charge' behaviour (Love and Dustin 2014), there exists a frequent conflict in that the authentic behaviour that would be most valued by the customer *and* service worker may require deviation from the firm's prescribed service script. The presence of this script, and other organisational cues (such as excessive standardisation of behaviours and appearance) that act to regulate personal performance, leads to a sense of emotional numbness in the employee – as they are required to disregard their own emotional state and to act in an inauthentic manner.

Authentic behaviour, during which the employee feels connected to their current emotions and empowered through mastery of their actions, is founded on that employee's sense of the honesty and quality of the service interaction. In addition, the employee's sense of their personal connection to the customer influences her preparedness to stray from the safety net of the service script and become vulnerable through open displays of authentic emotion (Yagil and Medler-Liraz 2013). Although benefits for the emotional state of the employee and the servicing of the customer seem likely, these benefits come with

associated costs: relating to feelings of a loss of control and loyalty to the directives of the firm. Again, this background indicates that any organisation must take care in choosing which aspects of its service to standardise and which aspects to differentiate, as well as how employees might actively participate in any situated decision-making.

It seems clear that a strong relational contract must be cultivated and maintained in order to incentivise and then support the type of 'winning' behaviours that I have defined. In addition, any such 'winning' behaviour must match the individual preferences of the customer service employee if he or she is to be enabled to act authentically. Only authentic behaviours meet the criteria for sustainable innovation, for without the intrinsic reward of authenticity the employee is unlikely to be motivated to voluntarily offer their imaginative and emotional labour (neither of which can be obliged). In addition, we must consider that customer service employees often do not act as solitary agents and firms typically employ large numbers of employees that are then organised as networks of teams. However, such management introduction of working cultures (here the idea of 'teams' in large firms rather than departmental divisions or units) can itself create difficulties. A management organisational design that pursues informality can have a negative effect, as I shall explore below.

11.3 Encouraging team efforts

A study of prolonged and deliberate efforts by the leadership team of a US customer service contact centre to drive a playful working environment revealed that this actually resulted in perceptions of condescension and inauthenticity by the employees (Fleming 2005). For context, it is worth dwelling on a direct quotation from one of the centre's leadership team. This team member stated that when an employee embodied the company's slogan (of "focus, fun and fulfillment") they were said to have the "right attitude" (ibid, 293). This evaluation of cultural fit was based on an assessment against subjective dimensions that the local management team had imposed on the teams.

This research highlighted that the distinction between work and non-work may be an important source of dignity and self-respect for employees, and that this was especially true for young workers who may have had a heightened desire to leave the trappings of childhood and school behind. The simulation of parent and child (or teacher and student) relationships that were observed in the workplace were seemingly misaligned with young workers pre-existing notions of what work actually means. These workers perceived management's eccentric attempts to make 'fun' a permanent feature of the workplace as

inauthentic. In light of the importance of dignity and self-respect in the blend of job design, this study suggested that, "perhaps too much emphasis has been placed on having fun at work" (ibid, 299).

Certainly, there was significant evidence to support the claim that the encouragement of fun through the organisation of games and simulation of enjoyable non-work environments (such as decorating the office like a nightclub) proved problematic. The scope of the study was not sufficient to reveal whether the anticipated benefits of constructive play might have been realised through a more genuine and power neutral approach (in contrast to the reported condescension and inauthenticity on behalf of management). It is also important to note that the research was conducted in 2005, and that a great deal has changed with regard to enabling technologies and the design of this type of work. Nonetheless, this case warns us that there is more to the enjoyment of work than a preoccupation with 'having fun'. This is why the 'action platform' that I propose might best operate as a form of constructive and purposeful play, rather than the type of "silliness" observed by Fleming (ibid, 298).

In conclusion, it is worth remarking that nearly 60 years after Argyris introduced the concept of the psychological contract, there seems to have been little progress towards the goal of successfully bringing the benefits of constructive play to the workplace. This is unfortunate, as constructive play is closely associated with intrinsic motivation (Krippendorf 2004a, Walz and Deterding 2014, 125), and intrinsic motivation underpins high-performance in work involving the 'emotional labour' (Hochschild 1983). This 'emotional labour' involves the front-line worker managing their actual feelings in order to reconcile them with the behavioural displays that were specified (in the firm's design) for effective customer interactions (Kinman 2009, 118). Gamification is increasing in popularity as a method for blurring the division between work and play, but the detailed quantification of workplace behaviour also parallels the rise of the surveillance society (Walz and Deterding, 345-349). Why do attempts to bring a more creative and playful approach to the design of routine work appear to have failed? As I have argued, the field of design must find a way to respond to this human complexity if it is to influence the management discourse positively (with the social benefits that Manzini anticipates).

11.4 Encouraging organisational innovation – the networked future

An important aspect of Manzini's arguments for the need to shift to the 'next' or 'distributed' economy, is his claim that management must relinquish the "illusion of control" in order to permit the "discovery of complexity" (2011, 1). His argument also has profound implications for service designers, as in order for them to play a meaningful role in the 'next' economy they must learn how to design for the human behaviour that has previously been categorised as 'un-designable' (Manzini 2015, 151). In particular, the relationship between design and human behaviour must be reconsidered, in as much as new methods are required if designers are to show leadership in the hyper-networked and devolved economy that Manzini foresees. These new methods may be the key to the firm trusting in the personal creativity and ingenuity of its employees. How then might this complex reality be understood and what methods might managers and designers use to shape it?

Management-oriented theorists endorse design thinking as an effective approach for engaging with human complexity in order to support 'breakthrough' industrial innovation (Brown 2008, 2009; Martin 2009). However, these advocates accept that design thinking does not provide a guarantee of success. Other design theorists also recognise it as an effective means for managing change (Schaminée 2018, 43-48), particularly when it is used as a complement to established change management styles, in order to increase their effectiveness in complex environments (such as public sector organisations). Upon reaching a certain level of complexity, large organisations (in themselves) become 'wicked problems'. Consequently, arguments from the management-oriented design thinking discourse have been embraced by private and public sector organisations alike. These arguments rest on claims to the distinctive effectiveness of the design thinking approach in transitioning from complexity to simplicity. For instance, Brown describes IDEO design teams passing through "three spaces" to achieve innovation (2008, 4; 2009, 15-17), and Martin presents his concept of the 'knowledge funnel' - through which design thinking can move us from 'mystery' to an understandable and controllable 'algorithm' (2009, 26).

Similarly, Manzini offers us design *for* services as a conceptual approach for meeting with this complexity – along with the 'action platform' as a practical tool (2011, 3). It is with this concept and tool that he claims designers might successfully engage with the 'un-designable' and through service and social innovation "create conditions that make some ways of being and doing more probable than others" (Manzini 2015, 151). This theoretical position forms part of his prediction of devolved networks and the distributed economy.

Whilst what Manzini foresees might appeal to designers concerned with service and social innovation, I contend that we must not under-estimate the challenge that I have outlined in the previous paragraphs. I summarise it thus: sustaining a large service organisation is itself a 'wicked problem' (given its interaction with its employees, and their interactions amongst themselves) that additionally faces the ongoing 'wicked problem' of how its employees might best interact with its customers on its behalf. Although the design *for* services theorists have recognised this hyper-networked social complexity, their recommendations for action are either conceptual or limited to small-scale examples of success. Where else might we look for insight?

In her analysis of design-led approaches to innovation, Wrigley (2017) highlights that this "union of strategy and design" is "gaining momentum" (ibid, 235), and this offers organisations an effective means with which to integrate design and design thinking into strategic innovation frameworks. This design-led approach offers a holistic organisational structure for sustaining strategic advantage, which is based on the deep understanding of customer and stakeholder need. New value propositions can then be developed through design-led practices such as reframing problems, prototyping and iteration. However, Wrigley emphasises that an organisation must integrate design not only into its strategic philosophy but also into its executable practice. This often requires structural change and appointment of 'innovation catalysts' that can support the organisational transition by practicing advanced stakeholder management (and drawing on the sponsorship of senior managers). Although this design-led approach may offer a credible model for responding to the 'wicked problem' of organisational complexity, Wrigley explains that it remains an "overarching framework" for a "non-linear process" (ibid, 239). The 20 design-led principles that she introduces on the basis of her detailed research still only offer a "starting point" (ibid, 250) on which to build.

Complexity science also offer tools and processes for understanding 'wicked problems', and this fast-evolving field is making progress by incorporating the principles of design into scientific methods. For example, complexity theory defines the established patterns of organisational structures and operations as the state of system 'equilibrium'. When these complex systems are purposefully pushed away from this state, new connections in the network and – even – completely new structures may emerge from the deliberate disorder. The greater the opportunity is for choice and variety within these emergent systems, then the greater the opportunity is for resulting innovation. Importantly, 'social human systems' (unlike other natural systems) are able to "deliberately create constraints

and perturbations that consciously push a human institution far-from-equilibrium" (Mittleton-Kelley 2003, 35). These enabling social systems can also act to support new order as it emerges. This parallels claims by Manzini as to the growing 'wave' of convergence in social innovation and distributed systems that will lead to a new social equilibrium (2011, 1-3; 2015, 4-5 & 47). This also resonates with claims for the effectiveness of design thinking as a change management approach that can not only push an organisation away from its equilibrium but also foster the emergence of new sustainable structures (Schaminée 2018, 43-48).

However, the greater the level of detail in the design of these transformative constraints, the greater the need for support. This is because the new system's capability to self-organise (and the options for that self-organisation) may be excessively restricted. As I have explained, the focus of the manager–designers who wish to facilitate emergent innovation should be the enabling environment within the system rather than the details emerging within it. Harmonising the social, cultural and technical conditions in the system increases the capacity for new patterns, processes and relationships to emerge.

I have explained that the sort of 'action platform' that I have demonstrated might be applied to a wide variety of service organisations, subject to a supportive organisational culture. Research into the relationship between complexity driven design principles and the facilitation of innovation has revealed that these principles might be used to generate special environments that enable innovation (Mittleton-Kelley 2006). The key principles involved the purposeful increase of connectivity and interdependence through sharing the responsibility (amongst the local team) for networking with internal and external partners. Small gains need to be reinforced through positive feedback, and this type of positive feedback might come from colleagues and customers or - as a reflective experience – from an actor within the system.

In this scenario, and in line with my identification of collaboration, prototyping and reflexivity as defining dimensions of both improvisation and design thinking, continuous learning "based on the connection of ideas and on new insights" was encouraged (Mittleton-Kelly 2006, 13). It was important that learning also arose from exploring different possibilities, taking practical action and embracing mistakes as a means of accelerating progress. Another one of the key complexity principles that framed the design of these processes was 'self-organisation'. Teams were encouraged to self-organise and to co-evolve with the changing social ecosystem – as even novel solutions were subject to ongoing review and innovation. Again, this approach parallels the devolved and

autonomous decision-making that I revealed as being a necessary part of any design *for* anticipatory customer service.

Despite the positive results from Mittleton-Kelley's research, complexity theory proposes that specific innovations can never be guaranteed or predicted (ibid, 16). Such innovations are emergent and unpredictable. Nevertheless, any 'enabling environment' must also be an exploratory and adaptable one, in which innovation can be guided but never fully 'designed' or forced. The design of these environments must also pay regard to the various cultural influences of the individuals and groups interacting in the complex network (Valdez and Brennan, 2017). There is no single generic design that proves effective, as an important characteristic of many complex systems is their sensitivity to small differences at one point in time. This 'sensitivity to initial conditions' may lead to very large differences at a later stage. Consequently, the best predictions may become meaningless after even quite a short time horizon. This parallels several of the defining criteria for 'wicked problems', particularly those that relate to the constantly changing formulation of the problem and the lack of facility for a trial-and-error approach to a solution (Buchanan 1992).

Although it is clear that design might draw on complexity theory to inform its response to various forms of 'wicked problems', so too might complexity science embrace design. Design offers an effective means for reformulating the initial problem in order to open new paths for exploring solutions. Consequently, the future development of complex systems science "inescapably involves design" (Johnson 2010, 195). As it stands, even complexity science offers only improved heuristics and weak algorithms (rather than 'hard and fast rules') for most 'wicked problems'. However, this field continues to benefit from the ongoing improvements in computational processing speed (at ever lower cost), and its predictive powers may increase sufficiently to support the resolution of many of what are currently deemed to be 'wicked problems'. Therefore, I contend that the value of design thinking's application to complex problems may itself be diminished if *it* does not also embrace data science (Sgaier 2019). Advocates of the management-oriented design thinking discourse and design *for* services have been slow to highlight this risk.

11.5 Conclusion

Given the surprising level of complexity associated with how sustainable service innovation might be achieved, I was prompted to conduct this research in order to seek design perspectives that might respond to this challenge. Hall and Johnson (2009) address the application of both 'art and science' to complex business problems. They make the recommendation that businesses "develop an infrastructure to support art" (ibid, 62). The delivery of this infrastructure is under-pinned by four goals: creating appropriate metrics, getting art and science to work together, building an effective training program and tolerating failure. Whilst this guidance seems broadly appropriate, it is far from specific – and is couched in the traditional language of business and management. At the start of the previous chapter, I referred to a quote from a Cirque du Soleil leader who describes their role as being, "to transform them [the trainee performer] into an artist" (Heward and Bacon 2006, 32). This is clearly a more complex and employee-specific goal than developing a 'supportive infrastructure'.

Enabled by the advent of ubiquitous mobile connectivity and the emergence of data analytics, a contemporary trend in routine work is the turn to 'gamification' that tracks the performance of an employee in fine detail. This turn towards very detailed measurement of employee performance parallels the rise of the 'quantified self' (Whitson 2013) in which wearable technology tracks personal action and converts it into an almost constant stream of data. This is not to claim that the individual is actively deceived, or impeded, by these practices – indeed, much social utility may spring from them. However, it is important to note that an individual is not capable of making sense of the raw data that is the by-product of their 'quantified self'. This data collection and analysis is mediated by technology, and in the workplace it is interpreted through the subjective lens of the firm. We should be wary of workplace data collection and analysis for it (currently) only serves the needs of the firm. Social power imbalance, the position of gamification and the wider development of the surveillance society may drive us toward inhuman futures.

As I have explained in this thesis, the potential for customer service to develop into a truly creative practice (and the need for this practice to be system-based) moved me to think about the possibility of combining improvisation and design in its delivery. In searching for a design method that could support structured spontaneity, I began to speculate about the concept of 'improvisational design' and then to explore it by building upon Manzini's argument for 'diffuse' design – and his conception of the 'action platform'. I remain intrigued as to why we might tend to privilege certain actors in the creative design process

(whether or not they have professional credentials) but exclude others who might make equally valuable contributions. As explained, Manzini foresees this separation being resolved in new forms of design *coalitions* (2015, 50).

This tendency towards social categorisation impacts on those who perform low paid work, in that it overlooks the value of their creative capabilities. This particularly affects those employees at the commoditised end of the service economy's spectrum, as it inhibits them from employing their inherent talents. In addition, a lack of economic capital often limits the personal freedom of many customer service workers, and we might do well to help them claim their autonomy and authenticity. This is not only for the existential benefit that this might bring but also so that more 'star' service performers might be cultivated and rewarded for their talent in collaborative value creation. I contend that both intrinsic and extrinsic rewards might spring from the design *for* service principles incorporated in the 'action platform' that I propose.

The ongoing tension between economic and cultural capital that Bourdieu identified (1998, 5) must be kept in mind, as this frames the assumptions that I have just highlighted in regards to estimating the capability of low skilled workers to perform creatively (and even with moments of artistry). This tension should also keep us mindful of the realism of management being prepared and able to collaborate with front-line employees so that the latter might generate innovative customer service behaviours (as this is the type of turn that Manzini claims to foresee). Lastly, it also frames the appetite for the management-oriented discourse of design thinking, in as much as management may favour a particular design thinking variant because of its associated symbolic capital (Chernilo et al. 2013, Giddens 1991, 5). Affiliations with academic institutions such as the Stanford *d.school* and the Rotman School of Management may provide this form of capital, and this may be preferred to experimentation with the innovation 'action platform' that I have described.

Although it seems sensible to remain wary about workplace surveillance presented as 'gamification' and to remain circumspect about the social change Manzini predicts, my proposed method of intervention also has ethical considerations that should not go unexamined. My own position on this has been to assess the likely developmental benefits of participation in a form of *designerly* improvisation as a means of offsetting its potential risks. In summary these benefits are based on: (i) the encouragement to exercise personal reflexivity; and (ii) the opportunity to create. These two dimensions reliably represent the most advanced states of educational development (Krathwohl 2002), and throughout this thesis I have argued for the systematic cultivation of both of these human capabilities. In

making this argument, I have reflected Don Norman's conceptualisation of exploiting both "knowledge in the head" and "knowledge in the world" when designing for desirable behaviours (2002, 34-35).

The exercise of personal reflexivity and individual creativity provide benefits to any employee, and I propose that these benefits be considered to be as personally valuable as, and independent of, any concurrent economic benefits generated for an employing firm. The appropriateness of a system that supports autonomous and creative behaviours in order to pursue the goals of a customer service firm, as well as encouraging the development of that firm's employees, seems compelling. Although the ethics associated with the intention of moving any individual to a reflexive state must be carefully considered, the design of my proposed method ensures that any participant is not being used simply as means to the firm's end (Benn 2004, 95).

The impact of power dynamics has recurred throughout my examination of the collaborative practices of design thinking, improvisation and contemporary customer service. Consequently, I have taken care to avoid the unintentional introduction of coercive or positional power as a characteristic of the innovation 'action platform' that I propose (as I have shown power relationships to be oppositional to creative collaboration). To achieve the type of design *coalitions* that Manzini recommends, it seems likely that genuine, creative collaboration in the workplace must be founded in the type of "pure relationship" identified by Giddens (1991, 244) – being free of traditional obligations and dependencies.

Chapter 12 Discussion

12.1 Summary

In this thesis I have provided an argument for the role of improvisation in design thinking and design *for* services, as well as identifying the shared features of improvisation and design thinking. I have also described an 'action platform' for customer service innovation, and grounded its illustration in a specific industrial setting. In these final chapters I now draw together a number of conclusions and explain how they relate to the field of design. In addition to these conclusions about the changing scope and methodologies of design, my research informs a number of important social, economic and environmental considerations[1] that I shall now explain.

The Australian economy is dominated by the service sector (see Figure 12.1 below).

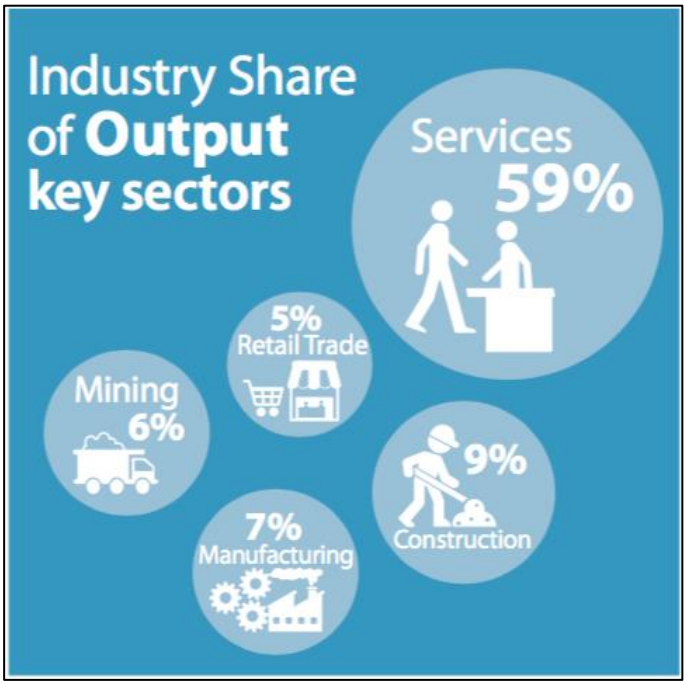


Figure 12.1 Snapshot of the Australian Economy (RBA 2016)

A major goal of government is to transition from its historic reliance on revenue from mining and resources to a dynamic, high value service sector. High levels of youth unemployment and concerns about diminishing social mobility are economic and political

[1] The Australian Government's 2015 Intergenerational Report (Treasury 2015) provides substantial context for these social, economic and environmental concerns.

challenges across the Australian Commonwealth. These concerns are relevant to almost all developed economies, and the impact of accelerating automation and predictive analytics is likely to intensify their importance[2]. Nevertheless, a recent report by Deloitte states that customer service skills remain in extremely high demand.

> *In fact, customer service is the most demanded skill in the Australian economy – going beyond retail and hospitality to interacting with and building relationships with clients and stakeholders in a range of industries.*
>
> (Deloitte 2019, 24)

Additionally, there are national and global fears regarding the environmental impact of industrial production and increasing levels of consumption. The purposeful design of product and service systems that forefront customer service (rather than the traditional reliance on physical materials and energy as manufacturing, construction or transport resources), presents a significant opportunity to improve levels of sustainability (Ceschin 2013, 6-7)

Responding to these various challenges may often require the autonomous and creative collaboration of an assortment of stakeholders. An appropriate structure for engaging and enabling these stakeholders is through the origination of a social system (Ackoff 1994), usually in the form of a collaborative network (Mortati 2013, 20-24). These organisational forms are contrary to the prevailing 'command and control' strategies of established rational management – and, thus, the desired transformational change is often very difficult to achieve.

The shift to these sorts of collaborative, networked structures is the shift to the 'next' or 'distributed' economy that Manzini foresees (2011, 1-2, 2015, 20). To Manzini, modern societies exist as living laboratories, suspended in a perpetual state of experimentation. In his model, expert and non-expert designers collaborate across space and time in pursuit of shared objectives (2015, 5). These are the informal collaborative networks observed by Mortati and they are rich in knowledge whilst operating outside of the traditional forms of social control (2013, 18-19). The critical reality to be drawn from this evidence is that these models of collaborative design are emergent and, in the sense of their participating population, they dwarf the official citizenry of institutional design.

[2] The Governor of The Bank of England recently suggested that 15 million UK jobs are at risk of replacement through automation: http://www.bankofengland.co.uk/publications/Documents/speeches/2016/speech946.pdf

As this context suggests, new forms of collaborative design may be applied more widely and in different ways than those explained by influential design thinking consultancies, such as IDEO. In my case study of contemporary design thinking process models, I provided evidence to support this claim by exposing the central characteristics of design thinking, each of which (in isolation) appeared to be generic and replicable. Although the institutional powerbase of proprietary design thinking benefits from its exclusive academic associations, the social movement of 'diffuse' design coalitions (reported by Manzini and Mortati) seems far more influential – given the sheer number of actors. In both 'expert' and 'diffuse' design there is interplay between designers and users, but collaborative relationships (those that are low in formal power and control) seem most abundant in the realm of 'diffuse' design. The culture of this movement encourages imagination and experimental action, which further proves the merit of using improvisation as an organising concept for delivering the central characteristics of design thinking. We all improvise as part of our daily lives, so it should come as no surprise that improvisation is important in design thinking. To support this claim, I have now provided empirical evidence that improvisation and design thinking share several important characteristics and processes.

I have shown that improvisation proves a worthy exemplar of creative collaboration and stands as an effective complement to design thinking (particularly in its application to design *for* service). Despite its form and function (that are best observed in improvisational performance), almost all that there is to be found in improvisation is an infrastructure that supports the processes of collaboration – processes that are then made tangible though experimental action. Consequently, it is suited to innovation in the field of behavioural service and experiential design, and - as revealed by my comparative analysis - it shares the mindset and certain practices of design thinking.

Of course, the concept that I presented in Chapters 9 and 10 is but one of the ways that a new 'action platform' that drives behavioural innovation might be designed. As I explained in Chapter 5 (and in keeping with the nature of my qualitative research methodology), this project was not the deductive search for a single, correct answer. Instead, I have analysed the literature to identify the key framing theories, and then synthesised these theories to produce a coherent conceptual framework for the construct of 'improvisational design'. I have then investigated this construct via the case studies of design thinking and improvisation, which produced empirical evidence of their shared features. My goal was then to describe how the construct of 'improvisational design' could be incorporated in an innovation platform, and to then ground my description in a genuine

industrial setting. I argue that this novel ‘action platform’ proposition will produce innovative service behaviours; and when other behaviours are original but not immediately useful, users will benefit from practice that refines their capability to innovate (and this practice can be largely self-guiding and thus inexpensive).

This platform for supporting the delivery of self-determined, useful and original action illustrates a systematic means for behavioural innovation, both in the individual instances in which innovative behavioural solutions to customer problems are generated, and in the opportunity for sharing these innovations across the organisation. Those behaviours that deliver the most obvious value can be refined and embedded in local service practice - or organisation-wide. Whilst this platform proposition makes a theoretical contribution to design knowledge, more importantly for the service sector is that this type of approach may offer quantifiable benefits to a firm. I shall explain these benefits in more detail in the next section.

12.2 The potential benefits

As we have already explored, social capital (Bourdieu 1986) can be generated through a discretionary effort (such as personalising a gift), and then embodied in the enhanced relationship that prevails between the relevant parties. Even though this discretionary effort might seem superfluous at the time, the interpersonal meaning it produces creates value. This value that is created by the personalised effort may then produce an economic return in the longer-term.

Thus, when the service worker is acting as the ambassador of the firm (or the personification of its brand), their creation of social capital generates perceived value that leads to economic benefits at a later date. Such benefits might include the opportunity for premium pricing and long-term customer loyalty. An employee who can effectively create this social capital through their interactions with customers (alongside their efficient handling of a service transaction) is a highly valuable resource. Where these employees can be developed inexpensively - and can also act authentically and autonomously to delight a customer - then all stakeholders benefit. The ongoing increases in capability and productivity produced through long-term retention of the employee, along with the capacity for such established agents to act as nodes in the cross-organisation collaborative network, provides the opportunity for value generating innovation to be systematically embedded. This is the intended effect of the type of ‘action platform’ that I propose.

Furthermore, in achieving the status of a highly valuable - and productive - resource, it is likely that the service worker might also be able to share in the economic benefits that their generation of social capital has created. In potentially being able to command a higher level of remuneration, justified by their personal economic productivity, and also by being more difficult to replace with a machine – there is the hope of a more prosperous and secure employment relationship for (what are currently classed as) low skilled workers. This emphasis on creating value through human behaviour also means less reliance on consuming the resources typically used in industrial production (with their immediate financial costs to the firm and the longer-term costs to the environment).

As I have explained, this type of product and service integration creates a product-service system that improves sustainability through its focus on exploiting non-finite and intangible resources (Ceschin 2013, 6). Consequently, from an ethical perspective, business can pursue its purpose of enhanced profits (Friedman 1970) whilst potentially supporting the authentic development of their debut service workers and enhancing its environmental credentials. It is, perhaps, the appeal of outcomes such as these that has made design thinking so attractive to business and government – despite the ongoing scepticism of the formal design community.

In expressing such scepticism, (Nussbaum 2011) argued that an important problem with the perceptions of design thinking was that it had been 'packaged' by designers as a process that would reliably deliver creativity for businesses. By presenting it as a dependable product for generating creativity, Nusbaum suggested that design firms had made corporate buyers more receptive to design thinking. These design firms were then able to advance their interests by increasing their "engagement, impact and sales" (2011, 1). More recently, (Kolko 2018) has made the same point. Wrigley (2017) has argued that design thinking must be incorporated in an overarching design-led approach to ensure strategic innovation. Nevertheless, many businesses – in embracing this management-oriented design thinking - have turned it into another linear process; removing its features of creative collaboration and experimentation. This has significantly reduced the likelihood of them actually achieving breakthrough innovation. The absence of this type of innovation typically results in an efficiency paradox, in which the firm become increasingly efficient in delivering a product that, eventually, no customer desires.

I examined the research of Manzini, Mortati and Ceschin, which provided us with a useful framework for evaluating the broader social impact of collaborative design (as it is the global design and innovation domain that is their focus). Their research suggests that

large-scale collaboration and improvisation can emerge and that there is the desire for such social innovation, with global digital networks now providing the means for the intense connectivity and knowledge exchange that can support the symbiosis of 'diffuse' and 'expert' design. Although these three theorists do not endorse any specific approach, Manzini does make positive comments about IDEO's Human Centered Design Kit, citing it as effective example of a carefully designed tool that "everyone can use as they see fit" (2015, 154-155). He also refers to Giddens's concept of a life project, and explains that – in a world where traditions and formalities are largely on the decline – individuals need tools to help them design a coherent response to the overwhelming choices of modernity (2015, 31 & 85). My own conclusions are aligned with his claims, particularly in regard to enabling and invoking reflexivity in employees. Very recently, Dorst (2019) has made similar arguments and I shall examine these in several of the following sections.

12.3 Limitations of the research

My research has been deliberately focused on the means of combining design and improvisation to support 'real-time' customer service innovation, and many of my findings are especially relevant to this sector. Furthermore, I have specifically examined the management-oriented mode of design thinking that is advocated and practiced by IDEO and Stanford University. Nevertheless, both of these organisations remain very influential in the fields of education, innovation and commerce; and customer service forms a significant part of most developed economies and is a form of employment that is generally associated with debut workers and low pay. The economics and politics of this sector are priorities for government, business and society. Therefore, the type of approach that I propose is highly relevant to the evolution of contemporary design practice (Dorst 2019) and the skills required for future work (Deloitte 2019).

I recognise that the cultural scope of this study is primarily that of English speaking, 'Western' economies such as Australia, the United Kingdom, New Zealand and the United States. There are also significant differences in the value orientations of even these four countries (Walz and Deterding 2014, 302 & 305). Care would need to be taken to tune any such 'action platform' (as the type that I propose) to the local workplace culture in which it is deployed, particularly given the general increase in multiculturalism and the diverse values found within the workplace and social communities.

This cultural dimension is not only relevant to any consideration of appropriate customer service interactions but also to perceptions about what might constitute play. Such

perceptions are founded in - and often simulate - important elements of the cultural and social inheritance (Walz and Deterding 2014, 304). In addition, the significance of the problem of distinctively varied customer service is likely to be most relevant to post-industrial societies as these are pursuing development of service and innovation based economies.

However, I have kept these cultural matters in mind throughout this project, and – although the illustrative play system that I propose is specific to an Australian workplace – the overall concept is likely to be generalisable, as the information that is used in the various 'micro personas' may be designed to reflect local conditions and relevant customer need archetypes. Similarly, although my illustrative 'action platform' proposition is a product of my synthesis of theory and empirical evidence, it is presented as an example of what could be a varied means of response to the challenge of customer service innovation. Again, all of these considerations were anticipated in my selection of a constructivist interpretative methodology that suitably reflects the orientation of the research question.

Perhaps the most challenging aspect of this research has been finding the boundaries of the problem (as it incorporates the fields of design, improvisation and the customer service industry). Given the various conceptualisations of design thinking, it has been necessary to first identify and then investigate the management-oriented discourse. A forensic examination of practice-related texts was then necessary in order to reveal the specific 'mindsets' and 'methods' that constitute design thinking in the real world. In light of these analyses, I now explain how my work has built on previous research, and then summarise the various original contributions to design knowledge that my thesis provides.

12.4 Contributions to the field

Firstly, there appears to be no extant research that has conducted the same type of direct comparison of design thinking process models that I have performed. Secondly, although I have particularly built on theorists such as Kimbell (2011) and Manzini (2011), to my knowledge there are no other examples of their arguments being synthesised to provide a proposal for a customer service 'action platform', such as the one that I suggest. Polaine's (2010) PhD study of interaction design incorporated the concepts of play and vehicular language, but in regard to engineering a digital user experience. He recognised the importance of networked and systematic approaches to the field, but only in his final paragraph did he posit that: "Service design is the natural meeting point for play, interaction, sustainability and experiences for they are all the tangible touch points of the intangible 'service' " (ibid, 161).

We have seen that the ‘action platform’ is intended to create an environment for “making certain kinds of behaviour more difficult and others more probable while leaving opportunities for action and interpretation open” (Manzini 2011, 3). Nevertheless, specific methods for enacting the aspects of the platform that make certain creative behaviours more likely remain unexplored. Meanwhile, Normann argues that in the moment of the service interaction the employee is “very much on their own”. The company can no longer directly influence what happens in that moment, and “[i]t is the skill, the motivation and the tools employed by the firm’s representative and the expectations and behaviour of the client which together will create the service delivery” (1991, 21). However, he offers only general guidance for how the firm might ensure success in these important scenarios. I have described my proposition for an innovation ‘action platform’ in direct response to a specific industrial case that is grounded in an ethnographic field study.

Both Normann and Manzini hint at the need for an improvised solution to the challenge of the service interaction but neither explains their claims in detail. The perspectives of management-oriented design thinking advocates, such as Brown and Martin, have dominated the scene. Consequently, this thesis builds on the concepts of the ‘moment of truth’ and design for service – as a new part of the management-oriented discourse. Dorst’s recent reflection on his 2011 conceptualisation of ‘design abduction’ complements my own contributions, in that he argues that in situated complexity the ‘what’ (interpreting the problem) and the ‘how’ (solving that problem) are “dependent on one another” and therefore have to be constructed “more or less simultaneously” (2019, 120). Dorst also recognises the value of a team effort as an effective strategy for handling this type of complex problem solving (ibid, 120 & 121).

My personal interest in this problem domain was piqued after some professional exposure to IDEO and their approach, during which I noticed that many of their regional design team were not actually credentialed designers – rather they were drawn from other fields and granted ‘designer’ status through their association with IDEO’s brand and its proprietary methods. On conducting initial research into design thinking, the gap between the rigour of what is identified as ‘designerly thinking’ and the ‘flexible’ approach advocated by IDEO became apparent. I was also intrigued by the permission to improvise that the IDEO ‘designers’ granted themselves as part of their self-guiding approach.

Unlike influential academic and commercial bodies such as Stanford University and IDEO, the improvisation community is almost without any organising institutions. Therefore, it lacks prominent advocates or an established power base. However, the close examination of

this field – both in theory and contemporary practice – indicates that it is observable at the heart of the proprietary approaches to design thinking, and particularly in the conceptual models of design for services (in which it is strongly implied). Nevertheless, improvisation is not appropriately recognised as a learnable capability, despite its focus on following its processes rather than pursuing direct results. Both in common regard and in the scholarly literature, the acquired skills of improvisation practitioners are assumed to be inferior to those of so-called 'design thinkers'.

Certainly, there are examinations of applied improvisation, such as the studies of investigative rehearsal movement (Howe 2009, Lawrence and Hormess 2015) and enacted design enquiry (Gerber 2007, 2009, Sirkin and Ju 2015, and Sirkin et al. 2016a, 2016b). Meroni and Sangiorgi (2011) have also provided case study evidence of the design for services in action. However, in much of the management-oriented literature that advocates design thinking, improvisation is not explored in any detail. My research is novel in establishing the shared features of improvisation and design thinking, and in demonstrating the potential application of a form of *designerly* improvisation to innovative interactions between service workers and customers. My research has also confirmed that these shared features can be embedded in 'action platforms', which can then partially eliminate the need for an attending designer to be present. The platform itself acts as the facilitator or co-designer. The Service Heroes prototype that I proposed in Chapter 10 is an artefact that illustrates the new 'exploratory' forms of design that Dorst advocates (2019, 123).

I am also aware that there are several design thinking 'method card' products on the market, including those produced by IDEO, which encourage the behaviours associated with collaborative design – but these cards are not intended as a self-contained system. These types of open systems are more susceptible to the skewing forces of situational power that impede creative collaboration, and many of these methods and tools (that have emerged in the service design domain) require genuine collaboration to be (somehow) safeguarded during their use in order to maximise their effectiveness. A project that more closely resembles what I propose is IDEO's work with Ritz-Carlton on their Scenography program (Brown 2009, 122 & 123). This approach relied on creativity and improvisation, but it was designed to assist those in management to empower the frontline teams. I offer the Service Heroes platform as a tool for use by those workers at the frontline, and it is intended to support local and autonomous decision-making.

I explained in the previous chapter that the illustrative Service Heroes concept is not immune to the prevailing organisational culture, but the platform only requires those in

power to suspend judgement, rather than requiring them to ably navigate the complexities of the 'designer' role. This is as my proposition provides a means by which expert designers may embed those characteristics of their own 'designerly thinking' (that may be necessary to ensure effective 'diffuse' design) without the need for their physical presence or ongoing input. A new 'action platform' design might be required for different challenges, but each might simply incorporate elements that are bespoke to the local scenario whilst its core principles remain the same. For instance, the type of underlying customer need states presented in Chapter 9 might be determined for each new customer service environment and be matched with a repertoire of artefacts that seem likely to create a range of new value-creating possibilities.

My consideration of collaboration hitherto has been limited to that which occurs between humans, but another domain that appears relevant to the deployment of customer service 'action platforms' is the future interaction between human workers and substitute technologies. This is as there is an emerging field that explores the opportunity for collaboration between humans and machines. The machines specifically designed for this project are referred to as collaborative robots or Cobots (Veloso et al. 2012). The framing philosophy for this work is that job roles are composed of interrelated tasks, and that these tasks can be appropriately directed to either the human or the robot. For example, one pilot study tested how a robot (designed without advanced dexterity functions) could do the lifting and carrying of mail delivery within a multi-floor building, whilst its human partner provided the fine motor skills required for the selection and handling of letters and small parcels.

There are other opportunities for humans to collaborate with technology. An impediment to this type of partnership has been the tendency to imagine that computers simulate human thought, when – in fact – they operate very differently (Susskind and Susskind 2015, 43-46). There are many ways that Artificial Intelligence can compliment human creative and emotional intelligences (ibid, 164). Consequently, if we cannot compete with computers in the realm of pure calculating power, how might we focus - and enhance - our capabilities in realms such as creativity? A machine's capacity for adhering to recurring instructions with negligible deviation and a human's capability for empathy and creativity seem like the ideal basis for an advanced 'action platform'.

In the Cobot pilot, the machine did all the carrying and lifting but had no dexterity. So, rather than build that in, it had a human collaborator that provided the fine motor skills for selecting the letters. It is easy to imagine a scenario where, rather than going to the trouble and expense of building a form of replicated human sensitivity into a customer service

Cobot, a human could work somewhere in the background providing the appropriate creative touches. This is still a form of anticipatory service, which requires the sort of ongoing behavioural innovation that I have explored in this thesis. Leaving the opportunity for human operators to apply their own creativity in the way that they might work with these machines also represents a form of ‘design in use’.

In summary, my research provides a credible argument for harnessing the shared features of improvisation and design thinking in order to engender and support new forms of ‘improvisational design’. My proposition for an ‘action platform’ illustrates how innovative customer service behaviours might be supported by this approach. This approach offers a new means of establishing collaborative networks and building a web of ‘distributed’ design that connects across space and time. This is an expression of the so-called ‘next’ economy.

Chapter 13 Conclusion

In this thesis, I have produced an original synthesis of theory to reveal the role of improvisation in design *for* services and design thinking. In addition, my research has provided a critical analysis of improvisation and design thinking (as it is understood in the management-oriented discourse) to establish that these fields share several important features, and I have produced new empirical evidence to support this claim.

The power dynamics that may inhibit improvisation are a skewing force that is not fully addressed by the advocates of design *for* services or design thinking, and the uncritical adoption of these approaches (without a proper understanding of the creative, improvisational processes of collaboration and prototyping) by business and government presents a risk to innovation and the overall reputation of design. I have examined this problem thoroughly within this thesis, and I have proposed some means of addressing it, particularly through the organising concept of the 'action platform'. I have also described in detail how the features shared by design thinking and improvisation might be incorporated in such a platform, in order to support innovative customer service behaviours. To fully examine how Manzini's 'action platform' concept might be applied to a genuine industrial setting, I grounded my description in specific examples of customer need that had been revealed by an ethnographic field study.

Throughout the design field the model of phased divergent and convergent thinking is emblematic, and the UK Design Council's *Double Diamond* model is a prominent example. My research highlights that the nexus of convergent and divergent phases parallels the 'offer' used in the process of improvisation. This nexus is the point of 'handover' for collaboration, and it is also a moment of reflexivity (at which point habituated thinking is disrupted by an unforeseen constraint). This constraint enables and drives the subsequent creative divergence (Dorst 2019). I have argued that the effective design of these sorts of 'handovers' can support both an accelerated convergence on - and the local exploration of - a situated problem space, whilst also enabling design collaborations across space and time.

There are significant epistemological obstacles to identifying the precise cognitive processes at work during the moment of creative insight (that is represented in many design process models). In light of the complicating commercial and social incentives, we might remain sceptical about the moments of 'special' insight claimed by those who might present themselves as *bona fide* design thinkers. Rather than being representative of design

expertise or a superior level of personal reflexivity (Schon 1994, Cross 2001, Cross 2004), their insights may not be worthy of any privileged status. Given this obscurity it seems unreasonable to exclude the concept of 'improvisational design' from serious consideration, as it - at least - purposefully offers non-designers the means to think and act within a *designerly* framework. The approach that I propose offers no guarantees, but neither does a superficial level of technical expertise and reflexivity (that may be difficult to diagnose in any self-promoting design thinker). I suggest that the merits of a design method are best assessed by its aptness once applied in the material world, and given the increasing participation in 'diffuse' design, the professional design community might do well do explore new methods that transfer (as least in part) the benefits of *designerly* thinking to non-designers.

Therefore, I now make several recommendations for design research and industrial experimentation that build on my findings. The first is that more research be conducted into how this type of 'exploratory' design (Dorst 2019) may support social innovation in general. The second is that continued examination of the effect of the 'action platform' concept, which supports interpretation and action, is specifically needed in order to produce new design *for* services methods that might be applied in industry. I shall now explain these recommendations in more detail.

With respect to institutions such as government, education and business, there seems to be the opportunity to design playful 'action platforms' that convey the intentions of the organisation in a manner that encourages an employee's creative and authentic behaviour. This approach contrasts with gamification, in which the objectives are usually very specific, and success is confirmed through a quantitative scoring system that is imposed upon the 'player' – rather than through personal meaning (or the co-constructed meaning of a customer service interaction). This approach also supports a new form of leadership that is based on soft power, enduring human relationships and self-determination – rather than control. I recommend that further research be done to test how this form of catalysing 'action platform' might most effectively and usefully be applied.

Manzini explained that an 'action platform' should make "certain kinds of behaviour more difficult and others more probable" (2011, 3), and the potential for this concept's application to new types of collaboration between robotic machines (that reduce unwelcome variety) and humans (that produce welcome variety) is very significant. This is particularly relevant given the growth in sectors such as caring for the aged or infirm. For instance, the Australian National Disability Insurance Scheme specifically allocates funding on the basis of participant outcomes, rather than completion of specific tasks by

providers. One might imagine a Cobot completing tasks such as washing-up and cleaning, whilst the human caregiver focuses on creative interaction with the aged client. Consequently, another recommendation of this project is that my proposal for combining design and improvisation is explored and tested further, with a view to industrialising the effects. Given the ubiquity of social media networks and the delivery channel of mobile applications, there has never been a more suitable time to apply these proposals. I recommend that human-centred designers seek new collaborations with their colleagues in engineering and computer science in order to design *for* services.

In conclusion, I must emphasise again that design *for* services is distinct from service design. This distinction continues to need examination and clear articulation. In many instances, service design may actually operate as a sub-set of design *for* services in which analysis and planning for service delivery takes place. However, a form of 'improvisational design' may often be needed to realise the promise of design *for* services – as it is deployable at the precise moment of service interaction to make apt creative behaviours more likely. These specific moments may be planned as part of a general service design but they cannot be fully resolved in advance, as the service designer cannot know the eventual situated details. A fusion of improvisation and design needs to be deployed in the 'moment of truth' in order to realise the latent value that lies in the opportunity to create customer delight (through anticipatory service).

I have examined the application of Manzini's 'action platform' concept to customer service specifically, but it is also generally applicable to emergent situated problems that require a spontaneous, creative response. We have seen such examples in Mendonça and Wallace's case studies of emergency management (2007). Dorst argues that in these complex environments any pursuit of a sole correct solution would be "riddled with assumptions" (2019, 123). He claims that designers must now acknowledge the complex nature of many contemporary design challenges and pursue new "exploratory" and "reflective" processes (ibid). I contend that in the absence of a single solution the process that supports the iterative search is *itself* the solution, hence the appropriateness of my illustrative 'action platform' as a valid design method.

Finally, it is also important to recognise that even established design methods need to be selected (and also applied) in the context of particular organisational challenges and cultures, so even design thinking professionals may have to react spontaneously to these needs and design 'improvisationally'. In this thesis, I have purposefully examined a specific manifestation of this general phenomenon.

APPENDICES

Appendix A Topics and Questions for Semi-Structured Interview(s)

The interview participants will be advised, at least 48 hours in advance, that the following themes will be explored:

Topics

- Personal background
- The recipe for success
- The role of process
- The role of practice
- The “offer”
- Failing safely
- Tricks of the trade
- Quality
- Common misconceptions
- Applied improvisation

Question bank

1. Outline your personal career in improvisation
2. What were your reasons for being drawn to improvisation
3. How would you describe successful improvisation?
4. What do you see as the main drivers of successful improvisation?
5. What personal qualities are needed to improvise?
6. How much practice does it take to reliably perform the basics?
7. How would you characterise the journey from the basics to mastery?
8. How often to people improvise as part of daily life?
9. What must be embraced to succeed in improvisation?
10. What must be rejected to succeed in improvisation?
11. Describe your preparation for an improvisational performance
12. Describe your mental state when the performance is going really well
13. Describe your physical state when the performance is going really well
14. What are the key techniques involved in a performance?
15. Are any of these techniques used more often than others?

16. Do you have any specific techniques that you favour – or rely on?
17. What types of people are well suited to improvisational performance?
18. What types of people are ill suited to improvisational performance?
19. How would you describe the relationship between a pair of performers during an improvisational performance?
20. How would you characterise the relationship between "thinking" and "doing" during improvisation?
21. How do give your fellow performers clues to what you're imagining through your actions?
22. Explain the term "the offer".
23. Tell me more about the technique of building on the "offer".
24. How would you define "collaboration"?
25. What differences do you see between "collaboration" and "cooperation"?
26. What is the community's attitude to preparedness to fail?
27. Explain the term "failing safely".
28. How do you remain mindful of quality whilst also embracing failure?
29. How do you review the concept of quality after a performance?
30. Explain more about applied improvisation?
31. What do you see as the benefits for the individual in experiencing "applied improvisation"?
32. What do you see as the benefits for a group in experiencing "applied improvisation"?
33. What type of culture supports openness to this approach?

Example follow-up questions

- Please tell me more about that …
- Please go on …
- Why do you think that?
- What makes you think that?
- How would you characterise X?
- What would be your comments on X?

NB: Where the participants' recollection of their thoughts during an improvised performance is sought (subject to the richness of the interview sessions), an improvised performance will be recorded and the 2 performers will then be asked to provide a commentary of their specific thoughts during a 5 – 10 minutes extract. This will produce a record of their contemporaneous thoughts synchronised to their visible behaviours. This is intended as a partial crosscheck between the rhetoric of the improvisational community, their expressed opinions and observed practice.

Appendix B Interview with Glenn Hall (abridged version)

For the purposes of remaining concise, the full transcript of the interview has been abridged in order to highlight the most significant aspects of the text. Each interjection has been numbered, so that it is clear to the reader where there is omission – and to enable ease of reference to this version of the full transcript:

EG2: So, Glenn could you, first of all, outline your personal career in improvisation. What's brought you here today?

GH2: When I was finishing Primary School, I was quite the little extrovert and had just been in the school play and my teacher handed me a pamphlet and said "I think you should have a look at this" and it was for John Curtin Senior High School which has since become John Curtin College of the Arts and it was for, to audition to go to this school and be a drama or a theatre student alongside the normal curriculum.

So, to do theatre as many core subjects as your English, your Maths, your Science, your Social Studies, so I ended up getting into that and one of the first subjects you study, I suppose, as part of learning about theatre is improvisation. And so that was 1985 and so now it's 2015 so really 30 years ago, I suppose, is when it started.

EG3: What did improvisation look like in 1985 at John Curtin College?

GH3: A lot of it was not the same kind of stuff that I'm doing now, so it was what I guess what we would call structured improvisation where you were given a topic and you had to create a piece. So it was the idea of, not so much, we were just improvising something on the spot - but we would be given a topic. "A kid gets home late from a party and the parents are waiting for them, what happens?" So they would be prepared improvisations, I suppose.

Basically to loosen kids up, to get them being creative, to get them trying out a whole bunch of different ideas without them needing to work - or be perfect, I suppose.

Improvisation was a way to train an actor to be in the moment, so that - you know - when their doing the same play that they've done for 40 or 50 or 1000 times, they're still able to generate that sense of "this is the first time that it's ever happened"

EG4: So in terms of that originality, feeling original on the 1000th time, how would improvisation play a role in that, would you say?

GH4: The biggest part of that is not planning ahead. So one of the things improvisation really helps us to practice is the idea of being present in this moment - right now. Like we are … so not really planning ahead.

GH5: So, but, he has to play that role as if he's going to be king forever, and so you can't, I guess they call it Bridge Building, you don't want it to be transactional, you know?

GH6: So there's a level of awareness there, of inside that there's the actor as a character, the actor as the practitioner, in a way of, "well, I've gotta make sure I do all these things", and then the third part is almost like an omnipresent persona where you're outside of yourself watching yourself in the play. And so, often, these three things will converge.

EG9: How long does it take to get 'good' at this?

GH9: I think the biggest thing for me is, as a teacher of improvisation is, once I've taken away or moved a bunch of 'blocks', then you can get 'good' really fast. And a friend of mine, who's a improvisation teacher in Chicago has this modus operandi which is "I want to help people, get to where I am, but 10 years quicker".

GH10: And so it's like … for me it's removing a lot of the "blocks", and a lot of the "blocks", you know, the three main "blocks" that I see in people who want to learn to improvise is: one, they're afraid of stuffing up; two, their afraid of looking foolish; and the third one is that they need to be clever, they feel like they're not good enough. They need to be more than they are, and so – there - the three main things, I suppose, I mean there's other things, but they're the "blocks". If I can remove those "blocks", the quicker I can do that the better you can get.

EG11: And just broadly then, what proportion of people come in to participate in improvisation would have those "blocks", do you think? How wide spread or..?

GH11: I think. I think everyone has those "blocks", very rarely do you meet people who haven't done improvisation that don't have those "blocks".

GH12: And, if we're talking about improvisation not as a performance, because I think there's an extra whole bunch of things that you need - so I would often say, it's easier, if you want to improvise in front of an audience, where they pay you money, and you need to do a good job. It's easier for me to take someone that's trained as a performer and teach them to improvise. Because, the use of your voice, the use of your body, the use of your creative imagination – all of those things come through acting training.

GH13: So it's, that acting training teaches you to become very, very aware of yourself.

EG14: How would you characterise the journey from the basics to mastering it?

GH14: No, I just. What it requires is just a sort of a single-minded commitment to the moment, you know, really. That's what it's all about because whatever's happened is done and whatever the future is hasn't been decided yet, so there's no point paying any attention to those things. The only thing about things that have happened is remembering things that have happened, and understanding when those things may be important. So it's like, I call it retrospective justification.

EG15: I guess you're saying that it's a matter of not judging the quality of something that happened but remembering just as in "I went into the tea shop" and remembering that might be something that can be dragged out. It's almost like a prop, I suppose.

GH15: It's not getting down on yourself, and not beating yourself up for something that's done and dusted and gone and now you're onto the next thing. And I think that beating yourself up comes into those three things I mentioned, when people are afraid to make a mistake and if they do make whatever they perceive to be a mistake they beat themselves up for it.

People think they need to be original, and unique, when actually the skill of a really good improviser is the opposite of that. You know, they draw us in by giving us things that we can relate to, and being obvious. And then they find a difference from that.

EG16: What needs to be embraced to be successful in improvising?

GH16: Well the retrospective justification I suppose is a skill, I suppose as an improviser first of all there's the philosophical, once you kind of, can do the philosophical things, you understand how you need to be in order to be really successful as an improviser and then there's skills, and then there's technique after that, I suppose. And so … there the three things they don't operate individually, but that's how you build .. you know.

So philosophically it's that understanding of "You know what, it's improvisation, and sometimes, it's going to suck" and I need to be okay with that. And as soon as I'm okay with sometimes that it sucks, then I can go to the next level.

EG17: What needs to be rejected to succeed in improvisation?

GH17: The notion of getting things right. I think. You know, because what is right? No, not right. The notion of "best" or of "good and bad". And I often use that Shakespeare quote "There's nothing neither good nor bad, but thinking makes it so".

EG19: Can you explain the term "the offer".

GH19: Really, improvisation and life is offer and acceptance, or offer and not acceptance. There's an informal offer and a formal offer. A formal offer is for an example if I say to you "Have you seen the latest Hunger Games movie?" that's an offer to invite you into a conversation about maybe Hunger Games the movie, and what you think about it, movies in general, movies that you've seen.

So in that offer there's a whole range of different things that we could then talk about. But sometimes offers are informal too, I don't realise I'm making an offer. If I'm playing a scene with somebody and my head's itchy and I start scratching my head just because my, because Glenn's head is itchy, what I train people to do is to notice that as a character thing. So, if I scratch my head once and then I notice "Oh I scratched my head because it was itchy" if I scratch it again two times, it's a pattern. And so now we've got a pattern. And so now that means something, it means I've got lice, it means I need dandruff shampoo …

EG20: (Scratches head like Stan Laurel) Confusion?

GH20: Right, it could be anything you know, and I guess that's one of the things that we work on in improvisation is to be paranoid, that idea of, either everything means something or nothing means anything. And so that's "the offer", I think. And so a lot of improvisation, well a lot of what I teach people is to notice what's already there.

EG21: What's the kind of conventions regarding building on "the offer"?

GH21: So, for you to accept that offer. So that great thing that everybody probably already knows about improvisation is "yes, and …" So you say "yes" to that offer - and saying "yes" is not the word "yes", it's saying "yes" by involving yourself in that world.

GH23: So saying "I'm not ready to die" is that offer. You've said "yes" to that idea.

EG24: Because I guess there's a connection and a trajectory, I suppose it's associated and it's moved it forward a step.

GH25: Right! So then you've said "yes" to that idea and you've added the next little bit, and that's how we build on each other's ideas is by saying "yes" and then "and" and so, you know, often again it's helpful.

GH26: And that's still an acceptance of the offer but it's not really an acceptance of what the other improviser was trying to do. I mean one of the things about improvisation is to be changed by what is said to you.

EG27: Can you just talk to me about this idea of the collaborative ethic I suppose that's informally in these linkages like the chain of the offers - end to end. You know, can you just give thoughts on that. In terms of….

GH27: I tell people that they've got a bunch of imaginary presents behind each other and you pick up the present and give it a shape and a weight and a size, texture maybe, anything like that. But I don't say "happy birthday, here's a telescope". I say "happy birthday, I got this for you", and then the other person takes it and says thank you for this telescope. Or whatever they perceive it to be.

EG28: So you're leaving a gap there for them to fill.

GH28: Right and we call that a blind offer. So an offer is; here's this telescope. A blind offer is: "Here. Quickly. Take this!" And blind offers are the most fun bit in improvisation because for me it's like, alright, in my mind I may not know what the thing is that I'm giving you, I'm just picking up a random thing but I may have something in mind. So I think I'm giving you a telescope, you take it from me and it's a blunderbuss. Now I have to drop whatever I thought it was, I can't say "No, it's a telescope!"

EG29: So talk to me a little about this idea of letting go.

GH29: Yeah, so that idea of being flexible. Sometimes in improvisation it's fun not to name things straight away, but if somebody does name something then that's what it is. Yeah, that's what it is. So often at times in improvisation you have to let go of everything you thought was happening and everything you thought might be able to happen, and just go with what actually is happening.

EG30: So what about the role of ego?

GH30: Yeah, ego isn't allowed in the room really, and you're not allowed in the room. You're playing characters, you know, so it's not about you and your idea, and that's the collaborative nature. I think, getting back to that idea of the collaboration is that sometimes people will help make your ideas work and sometimes you'll help make other people's ideas work. You have to be able to let that go.

EG31: And so in a scene then, if there are 2 or 3 or 4 people. Who's in charge?

GH31: That's a good question. They're the trickiest kind of scenes with 3 or 4 people, because people feel like they, in order for me to feel valuable in this scene, I need to contribute something and the thing that I contribute needs to be large. Whereas often the best contributors in that situation are people that just fill in the details in the background.

There's a thing we talk about called advance and extend. When to advance the story and when to extend the moment. I guess you might say divergent and convergent. A lot of younger or newer improvisers, they want to get to the conflict or the 'bad stuff' straight away but first of all what we need to do is … we need to just know where we are, what the world is and who are the people in it. Which requires that divergent stream of thinking. So you give this sense of the world. So we call that making a platform. And that's all really stories are a platform and then tilt.

GH31: *(cont)* You know every story needs a "yes, but". "Yes, but one day a knight approached the castle, and he was different". And then we would "yes, and!" And he was different because… you know. He'd come from a great lineage of knights or whatever.

EG32: So you're building it out, you're moving forward?

GH32: Yes, and like a tree in a way, I always think of it like a tree you know, you have a tree that grows up a bit and then it grows out. You know, and it spends its time growing out and then it invests time in more trunk and then branches. And that's really it, trunk and then branches. And then from the branches; what's even more fun is the detail – so the leaves, You know, and being specific is what's really, is when things get interesting. You don't have to be clever, you just have to be specific. Because if I say once upon a time there was a castle, well everyone's got their own idea of a castle but there's lots of different types of castles. Once upon a time there was a castle made out of pure white marble. It sparkled, you know. And that gives a whole different feeling as to what kind of story we've got.

EG33: Trying to unite the audience with a reasonably common imagined world, I suppose. Rather than completely diverse…

GH33: … and just on that point, so if you think of it more like novels and we were talking before about Harry Potter. If you think about it, novels are incredibly detailed and very specific. I mean, think even about Tolkien's Lord of the Rings and those things. There's some very specific bits of detail in there, and those things don't disconnect us from enjoying the story, they build our enjoyment of it, because when I say that the single leaf and the way the water droplet fell off the leaf and splashed onto the ground. We still all have our own picture of what that looks like, yet the moment is very specific. It's the detail that we love. Otherwise every story is the same.

EG34: What about when things, for want of a better word, "go wrong" or "breakdown"? What's happening there, what are the attitudes connected with that?

GH34: Because even if it was like well that was unexpected, you're able to put that into some context or find some way to make that work, and often as well, that's the fun bit. And then you have to work everything out, rather than leaving breadcrumbs, like Hansel and Gretel would, along the way so that you know exactly where you've been and how to get back there.

So when it goes wrong, it's generally because people stop listening to each other. They stop listening to each other's ideas, and they're just trying to make their idea work. Or they're not affected by what is said to them, they're not changed by what is said to them, because really it's not about the quality of the offer. It's about how the offer was received. How it's accepted that makes it into something. And it's about when it goes wrong, I don't know, I suppose it's a matter of taste. But when the improvisation goes wrong it's because there's no connection between the people and their ideas. One person's trying to do their thing, and another person is trying to do their thing. They're not really collaborating anymore.

EG35: It's almost turned to a competitive thing, than a cooperative.

GH35: Some people are, there's different kinds of improvisers too, when things go a bit wrong. So there's really like those people who want to shine, everybody step back, this is my moment to shine. There are people who are just passengers in scenes, so they don't do "yes and ... and … and … and". Yeah, they never help advance the story, there are some people who just advance the story, who you know, "One day, we will be married" and then the action is all about driving towards that point of being married. So it's like building a marriage. It's like you know where you start … you know where you want to finish. You just build a bridge to get there. There's no disappearing down a rabbit hole in all different directions and seeing where you end up.

EG36: You need those diversions of the piece to hold interest – maybe?

GH36: And the other thing is for me when improvisation doesn't work is when it becomes about 'the stuff' and what people tend to forget is, everything we watch all the time is about the relationship. (GH gives the example of the television program, The Walking Dead.) But what it's about is the relationships. So what we're really interested in is; that zombie that still has a bit of humanity left in them or the person who has given up, you know, on ever beating the zombies and they've taken on the zombie mentality even though they're not a zombie. It's those relationships that we really care about. And to me that's in any art, in any type of artistic or creative thing it's always the relationships. For me it's not, will they succeed or won't they succeed, because that's just the coin flip.

GH37: Responding in the moment and not trying to plan ahead and trying to retain some of the things that have happened in order to reincorporate them later to seem clever. The audience is always going to be 5 steps ahead of you.

Try and act cool in a moment of pressure. You know, and for me that's the fun bit of improvisation. It's not the 'who' done it but the 'how'.

EG38: So I guess it's the journey, not the destination.

GH38: Correct. Exactly right.

EG39: What about this blend of thinking, and doing? Because the audience is sat and they've got all their mental resources for the plot but the performers are actually generating the plot and performing and they've probably got less mental resources available.

GH39: So generally the one thing we can surprise the audience with is the way that we respond emotionally to any given moment. Now for example you can categorise those two things as expected emotional responses and unexpected emotional responses. So, generally the rule of thumb is, if I have an expected emotional response it's drama, and an unexpected emotional response would generally be comedy, or even black comedy.

EG40: Where everybody else would do what was expected, and follow the etiquette?

GH40: So that's the thing it's the expected/unexpected or it's the etiquette of the situation. That's a great thing, when we do what's expected etiquette wise or unexpected etiquette wise.

GH41: And then a lot of improvisation from there is how do we make a situation worse, and that's where Seinfeld is so great. So it's like here's the thing now how do we make that worse?

EG42: Seinfeld is famous for nothing actually happens in terms of a long running plot.

GH42: It's the relationships! It's how it unfolds, not what unfolds, and I think that's important. And it uses a very well used improv technique or format which is often there will be 3 separate stories. So you'll have Elaine story, a Jerry story and a George story. And Kramer might have a little thing as well. It's not a linear narrative; it's a non-linear narrative. And what's great about that is that it gives the audience some work to do. Which takes the pressure off you having to surprise them.

For example, Pulp Fiction is a story; the plot is different to the story that we see.

EG43: So you've actually got to make things visible or tangible?

GH44: It's playing with the idea that a New York minute is infinitely long because so many things have happened in that one-minute. And I had this thing where, I was on stage as the director so at any moment I could say "pause", pause the action and the actors would stop and I could chat to the audience and get something from them. Or, I could guide the performers somewhere. But I had this rule; if I had to explain it, then I may as well not say it. So if I have to explain to you what my idea is, and then you act out that idea I just explained, well that's boring. Because the audience already know, so I think the same is true between great improvisers, it's like you throw something out there, and even if the improviser I'm working with doesn't get where I'm going with it but they interpret it in the way that they think it's meant to be interpreted. Then that's great. So for me it's that idea, that's like, if I have to explain to you what my idea is, then it's not worth it, how else can I communicate that idea? That's that like liminal space.

EG45: You want to get it out there implicitly but not explicitly, because once it's out there explicitly it's done really?

GH45: So often it's that fun of having the Stanislavski thing of having an objective but having a purpose isn't enough. You've got to have a strategy as to how you're going to achieve that purpose, and the classic thing I always think of is when a kid wants something from their parent and their like "Oh Dad, can I help you with anything? Oh here, let me help you move that thing." Yeah, right. Any parent worth their salt is like "What do you want?" Or rather any parent worth their salt will be like "Oh, yeah, son" … let them move it … and then go "Right, what do you want?"

GH45: *(cont)* And so for me, that's that bit of explaining. If I have to say, "Dad can I help you with that thing because in a second I'm going to ask you for something". That's the bit that you want to leave unsaid. You want to see if they pick up on it.

EG46: Which once again is leaving the gap for the imagination of the audience?

GH46: Exactly so another player that I'm playing with, if they're experienced, will understand exactly where I'm going. And what they'll do is, what they'll think is: can I make this maybe worse for them? Oh yeah, yeah, yeah, actually well there's actually something much harder that I need to do that you can help me with.

EG47: The first of 200 boxes I need to move…

GH47: Stanislavski had that idea of the objective and the super objective. The objective is "in this moment I want you to give me some money" my super objective is "one day I will control the world".

EG49: What proportion of people do you think could get to grips with the basics of improvisation? Given a little bit of coaching and a supportive environment.

GH49: I think anybody, really. I think 95% of people probably could, and you don't have to be, it's just about training really, so I mean, it's about resistance.

So first of all it's breaking down that resistance, and I think that resistance when in that applied space, a lot of it comes from people, because of the perception of what improvisation is, people think they need to be clever, people are afraid to get things wrong and they're afraid to look like idiots. I think a lot of people feel like I'm there to make them look stupid for my own benefit. And I always reassure every group and say look, I'm not here to make you look stupid, I'm just here to make obvious the things that you do naturally - maybe without even realising it - and to give you ways to improve those skills.

All of our lives are made up of billions and billions of improvised moments. So if I could give you the philosophy, the skills, and finally some techniques on how to improve those improvised moments by 10%, 20%, 50% and make those more constructive. Imagine all you could achieve in your life and in your relationships by being more constructive in those improvised moments.

We're afraid of awkwardness, and I tell people, you know what, it's okay to feel awkward. It's okay to feel uncomfortable, that's normal, that's how you know you're pushing yourself out of your comfort zone. As we all know, or maybe we don't, it's important to keep stretching that comfort zone, it's the number one reason people come and do my workshops.

So in that applied improvisation space I think 95% of people can find benefits instantly and that's the great thing about it. They can find benefits within an hour, and they can find benefits over the course of many years as well by continuing to train.

Appendix C Coding of Data from the Semi-Structured Interview with Glenn Hall

Summary

I was able to match almost everything that Glenn said during the interview to one of the four concept categories that I developed in Chapter 6. I led the semi-structured interview but I did not mention any of the four concept categories specifically, and the empirical data reliably represents the features of Glenn's improvisation practice. I crosschecked this interview data to the performance data that I produced using the 'think aloud' method following the video reviews. That data was aligned to Glenn's articulations, and I analysed all of the data for the effects of 'impression management', whilst remaining mindful of advocacy and promotional rhetoric (as per my critical analysis of the three design thinking texts).

It is also important to keep in mind that the members of Just Improvise were only commenting on their professional practice, rather than speculating on the potential relationship between improvisation and design thinking. Therefore, any positive bias that they may have had towards the benefits of improvisation does not materially influence my argument for 'improvisational design'.

Where elements in the table have been extracted from the same numbered excerpt (as shown in Appendix B), I have added a letter hierarchy to indicate the sequence in which they originally appeared. Glenn also made some comments that could not be coded to the concept categories. These comments specifically related to the technical training that could benefit professional improvisational performance (rather than amateur performance or applied improvisation) e.g. voice training and stage positioning.

Glenn made a number of comments that I have categorised as part of the Process Framework concept. I have labelled this sub-category *Relationships and Surprise*. These aspects are not directly comparable to the phases of divergent and convergent thinking that are the primary features of the design thinking and improvisation process frameworks. However, 'relationships' are central to human-centredness, and serve to connect the phases of divergent and convergent thinking in improvisation – as well as group collaboration and user-engagement in design thinking.

Similarly, ‘surprise’ is not completely equivalent to any element of the design thinking process framework, but it is relevant to the concept of innovation (that is expected in both the ‘problem reframing’ and ‘problem solution’ phases of design thinking). The form of ‘surprise’ that supports an engaging improvisational performance is also relevant to the co-construction of delightfully innovative customer service behaviours in the ‘moment of truth’.

Interview data coded to the four defining design thinking concepts
(defined in **Table 6.2***)*

Process framework

GH3a: A lot of it was not the same kind of stuff that I’m doing now, so it was what I guess what we would call structured improvisation where you were given a topic and you had to create a piece. So it was the idea of, not so much, we were just improvising something on the spot - but we would be given a topic. “A kid gets home late from a party and the parents are waiting for them, what happens?” So they would be prepared improvisations, I suppose.

GH19: Really, improvisation and life is offer and acceptance, or offer and not acceptance. There’s an informal offer and a formal offer. A formal offer is for an example if I say to you “Have you seen the latest Hunger Games movie?” that’s an offer to invite you into a conversation about maybe Hunger Games the movie, and what you think about it, movies in general, movies that you’ve seen. So in that offer there’s a whole range of different things that we could then talk about. But sometimes offers are informal too, I don’t realise I’m making an offer. If I’m playing a scene with somebody and my head’s itchy and I start scratching my head just because my, because Glenn’s head is itchy, what I train people to do is to notice that as a character thing. So, if I scratch my head once and then I notice “Oh I scratched my head because it was itchy” if I scratch it again two times, it’s a pattern. And so now we’ve got a pattern. And so now that means something, it means I’ve got lice, it means I need dandruff shampoo …

GH20: Right, it could be anything you know, and I guess that’s one of the things that we work on in improvisation is to be paranoid, that idea of, either everything means something or nothing means anything. And so that’s “the offer”, I think. And so a lot of improvisation, well a lot of what I teach people is to notice what’s already there.

GH21: So, for you to accept that offer. So that great thing that everybody probably already knows about improvisation is “yes, and …” So you say “yes” to that offer - and saying “yes” is not the word “yes”, it’s saying “yes” by involving yourself in that world.

GH23: So saying “I’m not ready to die” is that offer. You’ve said “yes” to that idea.

GH25: Right! So then you've said "yes" to that idea and you've added the next little bit, and that's how we build on each other's ideas is by saying "yes" and then "and" and so, you know, often again it's helpful.

GH26: And that's still an acceptance of the offer but it's not really an acceptance of what the other improviser was trying to do. I mean one of the things about improvisation is to be changed by what is said to you.

GH27: I tell people that they've got a bunch of imaginary presents behind each other and you pick up the present and give it a shape and a weight and a size, texture maybe, anything like that. But I don't say "happy birthday, here's a telescope". I say "happy birthday, I got this for you", and then the other person takes it and says thank you for this telescope. Or whatever they perceive it to be.

GH28: Right and we call that a blind offer. So an offer is; here's this telescope. A blind offer is: "Here. Quickly. Take this!" And blind offers are the most fun bit in improvisation because for me it's like, alright, in my mind I may not know what the thing is that I'm giving you, I'm just picking up a random thing but I may have something in mind. So I think I'm giving you a telescope, you take it from me and it's a blunderbuss. Now I have to drop whatever I thought it was, I can't say "No, it's a telescope!"

GH29: Yeah, so that idea of being flexible. Sometimes in improvisation it's fun not to name things straight away, but if somebody does name something then that's what it is. Yeah, that's what it is. So often at times in improvisation you have to let go of everything you thought was happening and everything you thought might be able to happen, and just go with what actually is happening.

GH31b: There's a thing we talk about called advance and extend. When to advance the story and when to extend the moment. I guess you might say divergent and convergent. A lot of younger or newer improvisers, they want to get to the conflict or the 'bad stuff' straight away but first of all what we need to do is … we need to just know where we are, what the world is and who are the people in it. Which requires that divergent stream of thinking. So you give this sense of the world. So we call that making a platform. And that's all really stories are a platform and then tilt.

You know every story needs a "yes, but". "Yes, but one day a knight approached the castle, and he was different". And then we would "yes, and!" And he was different because… you know. He'd come from a great lineage of knights or whatever.

GH32: Yes, and like a tree in a way, I always think of it like a tree you know, you have a tree that grows up a bit and then it grows out. You know, and it spends its time growing out and then it invests time in more trunk and then branches. And that's really it, trunk and then branches. And then from the branches; what's even more fun is the detail – so the leaves, you know, and being specific is what's really, is when things get interesting.

GH32: *(cont)* You don't have to be clever, you just have to be specific. Because if I say once upon a time there was a castle, well everyone's got their own idea of a castle but there's lots of different types of castles. Once upon a time there was a castle made out of pure white marble. It sparkled, you know. And that gives a whole different feeling as to what kind of story we've got.

GH33: … and just on that point, so if you think of it more like novels and we were talking before about Harry Potter. If you think about it, novels are incredibly detailed and very specific. I mean, think even about Tolkien's Lord of the Rings and those things. There's some very specific bits of detail in there, and those things don't disconnect us from enjoying the story, they build our enjoyment of it, because when I say that the single leaf and the way the water droplet fell off the leaf and splashed onto the ground. We still all have our own picture of what that looks like, yet the moment is very specific. It's the detail that we love. Otherwise every story is the same.

GH45: So often it's that fun of having the Stanislavski thing of having an objective but having a purpose isn't enough. You've got to have a strategy as to how you're going to achieve that purpose, and the classic thing I always think of is when a kid wants something from their parent and their like "Oh Dad, can I help you with anything? Oh here, let me help you move that thing." Yeah, right. Any parent worth their salt is like "What do you want?" Or rather any parent worth their salt will be like "Oh, yeah, son" … let them move it … and then go "Right, what do you want?" And so for me, that's that bit of explaining. If I have to say, "Dad can I help you with that thing because in a second I'm going to ask you for something". That's the bit that you want to leave unsaid. You want to see if they pick up on it.

GH46: Exactly so another player that I'm playing with, if they're experienced, will understand exactly where I'm going. And what they'll do is, what they'll think is: can I make this maybe worse for them? Oh yeah, yeah, yeah, actually well there's actually something much harder that I need to do that you can help me with.

GH47: Stanislavski had that idea of the objective and the super objective. The objective is "in this moment I want you to give me some money" my super objective is "one day I will control the world".

GH49b: All of our lives are made up of billions and billions of improvised moments. So if I could give you the philosophy, the skills, and finally some techniques on how to improve those improvised moments by 10%, 20%, 50% and make those more constructive. Imagine all you could achieve in your life and in your relationships by being more constructive in those improvised moments.

GH49d: So in that applied improvisation space I think 95% of people can find benefits instantly and that's the great thing about it. They can find benefits within an hour, and they can find benefits over the course of many years as well by continuing to train.

Relationships and surprise

GH36: And the other thing is for me when improvisation doesn't work is when it becomes about 'the stuff' and what people tend to forget is, everything we watch all the time is about the relationship. (GH gives the example of the television program, The Walking Dead.) But what it's about is the relationships. So what we're really interested in is; that zombie that still has a bit of humanity left in them or the person who has given up, you know, on ever beating the zombies and they've taken on the zombie mentality even though they're not a zombie. It's those relationships that we really care about. And to me that's in any art, in any type of artistic or creative thing it's always the relationships. For me it's not, will they succeed or won't they succeed, because that's just the coin flip.

GH39: So generally the one thing we can surprise the audience with is the way that we respond emotionally to any given moment. Now for example you can categorise those two things as expected emotional responses and unexpected emotional responses. So, generally the rule of thumb is, if I have an expected emotional response it's drama, and an unexpected emotional response would generally be comedy, or even black comedy.

GH40: So that's the thing it's the expected/unexpected or it's the etiquette of the situation. That's a great thing, when we do what's expected etiquette wise or unexpected etiquette wise.

GH41: And then a lot of improvisation from there is how do we make a situation worse, and that's where Seinfeld is so great. So it's like here's the thing now how do we make that worse?

GH42: It's the relationships! It's how it unfolds, not what unfolds, and I think that's important. And it uses a very well used improv technique or format which is often there will be 3 separate stories. So you'll have Elaine story, a Jerry story and a George story. And Kramer might have a little thing as well. It's not a linear narrative; it's a non-linear narrative. And what's great about that is that it gives the audience some work to do. Which takes the pressure off you having to surprise them.

For example, Pulp Fiction is a story; the plot is different to the story that we see.

Collaboration

GH30: Yeah, ego isn't allowed in the room really, and you're not allowed in the room. You're playing characters, you know, so it's not about you and your idea, and that's the collaborative nature. I think, getting back to that idea of the collaboration is that sometimes people will help make your ideas work and sometimes you'll help make other people's ideas work. You have to be able to let that go.

GH31a: That's a good question. They're the trickiest kind of scenes with 3 or 4 people, because people feel like they, in order for me to feel valuable in this scene, I need to contribute something and the thing that I contribute needs to be large. Whereas often the best contributors in that situation are people that just fill in the details in the background.

GH34b: So when it goes wrong, it's generally because people stop listening to each other. They stop listening to each other's ideas, and they're just trying to make their idea work. Or they're not affected by what is said to them, they're not changed by what is said to them, because really it's not about the quality of the offer. It's about how the offer was received. How it's accepted that makes it into something. And it's about when it goes wrong, I don't know, I suppose it's a matter of taste. But when the improvisation goes wrong it's because there's no connection between the people and their ideas. One person's trying to do their thing, and another person is trying to do their thing. They're not really collaborating anymore.

GH35: Some people are, there's different kinds of improvisers too, when things go a bit wrong. So there's really like those people who want to shine, everybody step back, this is my moment to shine. There are people who are just passengers in scenes, so they don't do "yes and ... and … and … and". Yeah, they never help advance the story, there are some people who just advance the story, who you know, "One day, we will be married" and then the action is all about driving towards that point of being married. So it's like building a marriage. It's like you know where you start … you know where you want to finish. You just build a bridge to get there. There's no disappearing down a rabbit hole in all different directions and seeing where you end up.

GH44: It's playing with the idea that a New York minute is infinitely long because so many things have happened in that one-minute. And I had this thing where, I was on stage as the director so at any moment I could say "pause", pause the action and the actors would stop and I could chat to the audience and get something from them. Or, I could guide the performers somewhere. But I had this rule; if I had to explain it, then I may as well not say it. So if I have to explain to you what my idea is, and then you act out that idea I just explained, well that's boring. Because the audience already know, so I think the same is true between great improvisers, it's like you throw something out there, and even if the improviser I'm working with doesn't get where I'm going with it but they interpret it in the way that they think it's meant to be interpreted. Then that's great. So for me it's that idea, that's like, if I have to explain to you what my idea is, then it's not worth it, how else can I communicate that idea? That's that like liminal space.

GH49a: I think anybody, really. I think 95% of people probably could, and you don't have to be, it's just about training really, so I mean, it's about resistance.

So first of all it's breaking down that resistance, and I think that resistance when in that applied space, a lot of it comes from people, because of the perception of what improvisation is, people think they need to be clever, people are afraid to get things wrong and they're afraid to look like idiots.

GH49a: *(cont)* I think a lot of people feel like I'm there to make them look stupid for my own benefit. And I always reassure every group and say look, I'm not here to make you look stupid, I'm just here to make obvious the things that you do naturally - maybe without even realising it - and to give you ways to improve those skills.

Prototyping

GH3b: Basically to loosen kids up, to get them being creative, to get them trying out a whole bunch of different ideas without them needing to work - or be perfect, I suppose.

GH10: And so it's like … for me it's removing a lot of the "blocks", and a lot of the "blocks", you know, the three main "blocks" that I see in people who want to learn to improvise is: one, they're afraid of stuffing up; two, their afraid of looking foolish; and the third one is that they need to be clever, they feel like they're not good enough. They need to be more than they are, and so – there - the three main things, I suppose, I mean there's other things, but they're the "blocks". If I can remove those "blocks", the quicker I can do that the better you can get.

GH15: It's not getting down on yourself, and not beating yourself up for something that's done and dusted and gone and now you're onto the next thing. And I think that beating yourself up comes into those three things I mentioned, when people are afraid to make a mistake and if they do make whatever they perceive to be a mistake they beat themselves up for it.

People think they need to be original, and unique, when actually the skill of a really good improviser is the opposite of that. You know, they draw us in by giving us things that we can relate to, and being obvious. And then they find a difference from that.

GH16b: So philosophically it's that understanding of "You know what, it's improvisation, and sometimes, it's going to suck" and I need to be okay with that. And as soon as I'm okay with sometimes that it sucks, then I can go to the next level.

GH17: The notion of getting things right. I think. You know, because what is right? No, not right. The notion of "best" or of "good and bad". And I often use that Shakespeare quote, "There's nothing neither good nor bad, but thinking makes it so".

GH49c: We're afraid of awkwardness, and I tell people, you know what, it's okay to feel awkward. It's okay to feel uncomfortable, that's normal, that's how you know you're pushing yourself out of your comfort zone. As we all know, or maybe we don't, it's important to keep stretching that comfort zone, it's the number one reason people come and do my workshops.

Reflexivity

GH3c: Improvisation was a way to train an actor to be in the moment, so that - you know - when their doing the same play that they've done for 40 or 50 or 1000 times, they're still able to generate that sense of "this is the first time that it's ever happened".

GH4: The biggest part of that is not planning ahead. So one of the things improvisation really helps us to practice is the idea of being present in this moment - right now. Like we are … so not really planning ahead.

GH5: So, but, he has to play that role as if he's going to be king forever, and so you can't, I guess they call it Bridge Building, you don't want it to be transactional, you know?

GH6: So there's a level of awareness there, of inside that there's the actor as a character, the actor as the practitioner, in a way of, "well, I've gotta make sure I do all these things", and then the third part is almost like an omnipresent persona where you're outside of yourself watching yourself in the play. And so, often, these three things will converge.

GH13: So it's, that acting training teaches you to become very, very aware of yourself.

GH14: No, I just. What it requires is just a sort of a single-minded commitment to the moment, you know, really. That's what it's all about because whatever's happened is done and whatever the future is hasn't been decided yet, so there's no point paying any attention to those things. The only thing about things that have happened is remembering things that have happened, and understanding when those things may be important. So it's like, I call it retrospective justification.

GH16a: Well the retrospective justification I suppose is a skill, I suppose as an improviser first of all there's the philosophical, once you kind of, can do the philosophical things, you understand how you need to be in order to be really successful as an improviser and then there's skills, and then there's technique after that, I suppose. And so … there the three things they don't operate individually, but that's how you build .. you know.

GH34a: Because even if it was like well that was unexpected, you're able to put that into some context or find some way to make that work, and often as well, that's the fun bit. And then you have to work everything out, rather than leaving breadcrumbs, like Hansel and Gretel would, along the way so that you know exactly where you've been and how to get back there.

GH37: Responding in the moment and not trying to plan ahead and trying to retain some of the things that have happened in order to reincorporate them later to seem clever. The audience is always going to be 5 steps ahead of you.

Try and act cool in a moment of pressure. You know, and for me that's the fun bit of improvisation. It's not the 'who' done it but the 'how'.

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